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EVALUATION 12 ND USMC INSTRUCTOR
TRAINING COURSE

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Thesis
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EVALUATION OF THE TWELFTH NAVAL DISTRICT UNITED
STATES NAVAL RESERVE INSTRUCTOR TRAINING COURSE
TREASURE ISLAND, SAN FRANCISCO, CALIFORNIA

A THESIS
SUBMITTED TO THE
SCHOOL OF EDUCATION AND
THE COMMITTEE ON GRADUATE STUDY
OF
LELAND STANFORD JUNIOR UNIVERSITY
IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS
FOR THE DEGREE
OF
MASTER OF ARTS

By
Leo W. ROBERTS, Lieutenant Commander, SC, U. S. Navy
June, 1950

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RAPPORTEUR
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THÈSE DE DOCTORAT EN SCIENCE NATURELLE
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THÈSE

APPROVED FOR THE SCHOOL OF EDUCATION

PREFACE

The author, a graduate of a Teachers College located in the Eastern part of the United States, has long been interested in the instructor or teacher training program of both the civilian and military educational establishments. Prior to World War II it was his plan to continue in the field of education, but the war came along and this plan was put aside when, some six months before the United States entered World War II, he accepted a commission in the United States Navy and has been on continuous active duty since that time.

The desire to pursue this study first came during the autumn quarter, 1949, while the author was enrolled in the Navy's postgraduate course in Personnel Administration and Training at Stanford University. During this period it was his privilege and pleasure to be associated with several members of the faculty and several graduate students of the School of Education, Stanford University, who were working on a contract between the National Office of Education and Stanford University covering the evaluation of the Navy's Instructor Training Program. It was his privilege to sit in on several conferences held in connection with the aforementioned contract, the most important being a five day trip to the U. S. Naval Training Center, San Diego, California, where the Navy's Instructor Training Course was observed.

The final decision was made to do this study when the author was advised by the Navy Department, Washington, D. C., that his next assignment in the Navy would carry him to Bayonne, N. J., where he will be Training Officer in charge of the instruction at the Navy's only school for training Supply Corps Officers. It can now be said that the experience gained through conducting this study will prove invaluable in the performance of his next assignment.

In reading this thesis the reader must keep in mind that the TWELFTH Naval District USNR Instructor Training Course given at the Naval Base, Treasure Island, San Francisco, California, is a two weeks course and that no course of two weeks duration can even hope to turn out polished instructors. We need only to look at the programs of our State Teachers Colleges and Education Departments of our other Colleges and Universities to realize how much time is spent by prospective instructors in preparing themselves for a career in the teaching profession. In most colleges and universities the student is required to pursue a more or less prescribed course for a four year period before he is given the stamp of approval and labeled an instructor or teacher.

ACKNOWLEDGMENTS

The author of this thesis found his work one of the most pleasant experiences of his academic life. It was made so by the people who kindly gave their time, efforts, and knowledge to make the study meaningful, and who continually gave encouragement, guidance, and support throughout this project.

First of all, acknowledgment should be made to the staff of the TWELFTH Naval District United States Naval Reserve Instructor Training School Treasure Island, San Francisco, California, for their willing and undivided support to this study. To LCDr. Robert Flood, USNR, Officer in Charge of this school, the author is indebted for his wonderful cooperation in making available the facilities of the school throughout this project. It is desired to especially acknowledge the splendid cooperation and invaluable assistance of Mr. J. W. McCauley, Educational Advisor to the Director of Training, TWELFTH Naval District, and a full time instructor of the school evaluated in this study. Mr. McCauley provided invaluable guidance and counsel in the selection of the methods and procedures followed in collecting, analyzing, interpreting and presenting the data in its final form. Without his able assistance, his constant encouragement, and his stout conviction of the importance of the project, it would have been impossible to

complete the project. The author owes him a heavy debt of gratitude.

To LCdr. John Stinchfield, SC, USNR, Supply Officer, Naval Air Station, Moffett Field, California, and Mrs. Ruth Holmes and Miss Mildred Day of the same office, the author is very grateful for their kind and willing assistance in preparing and distributing the questionnaires used in this study as well as assisting in the tabulation of the raw data and also for assisting in putting the data in its final form.

Acknowledgment should also be made of those persons who by their cooperation and assistance made the collection of the data possible, but whom it is impossible to mention individually. In this category fall the trainees of the course, the Commanding Officers of graduates of the course, et. al.

Finally, it is desired to acknowledge the invaluable guidance and encouragement offered by his faculty adviser, Dr. James MacConnell, and also Dr. William Iverson and Dr. James Curtis, all members of the Faculty, School of Education, Stanford University, who gave their time and efforts during this study to criticize and evaluate the progress of the study and also reviewed the study when completed.

The author desires to emphasize strongly that any errors found in this thesis, whether they be errors in

statements, computations, etc., are not the fault of the abovementioned persons, but are the sole responsibility of the author. On the other hand, the credit for any merits which this study may be found to contain should be shared by those to whom acknowledgment has been made.

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CHAPTER I

INTRODUCTION AND DEFINITION OF THE PROBLEM

Problem Defined

The purpose of this study is to evaluate the United States Navy's TWELFTH Naval District Reserve Instructor Training Course given at Treasure Island, Naval Base, San Francisco, California, which, for the sake of brevity, will hereinafter be referred to as the 12 ND USNR Instructor Training Course.

Delimitations of the Problem

Specifically, this study will attempt to evaluate only the instructor training phase of the 12 ND USNR Training Course with no attempt being made to evaluate the course from an administrative standpoint. No specific attempt will be made to evaluate the course curriculum since the curriculum is prescribed by the Bureau of Naval Personnel. In this connection, however, comments concerning the curriculum, when considered material to the overall project under consideration, will be included in this thesis with no specific attempt being made to evaluate them.

Need for the Study

The importance of the Organized Naval Reserve's Training Program cannot be overemphasized. The purpose or mission

of this component part of the regular Navy is to provide a force of qualified officers and enlisted personnel who are available for mobilization in the event of a national emergency.

One of the most important, if not the most important, functions of the Organized Naval Reserve Training Program is the instructor training. The Navy's instructors, commissioned and enlisted alike, are the key men who provide the leadership and who motivate trainees to acquire the necessary knowledge, understanding, skill, and attitudes required for the performance of their assigned duties. Few people have the ability to teach effectively without some training in the teaching field. Men who have become efficient instructors have done so through extensive training and putting into practice the learned fundamental principles of good teaching. It is a well established fact that the evaluation of instruction is one of the most effective means by which teaching performance of instructors may be improved.

It is the earnest desire of the author that this study will contain material that can be used to an advantage by the Staff of the 12 ND USNR Instructor Training School in carrying out the prescribed mission of the school.

Need for Instructor Training in the Navy

The period between the two world wars saw the introduction of new and vastly complex equipment for Navy use,

and made necessary the development of advanced types of training in all phases of installation, operation, maintenance, and repair of such equipment. World War II brought additional complex apparatus, and new techniques, thereby necessitating specialized training in almost every field. To be more specific, the discovery and application of electronic devices such as radar, fire control, sonar equipment, etc., and the development of jet propelled aircraft and rocket and atomic weapons of warfare have brought about tremendous changes in methods and techniques which, in turn, calls for large numbers of expertly trained technicians.

The Navy, in an attempt to keep abreast of these important and rapid developments, is striving to improve its educational program. With budgetary limitations placing restrictions on the number of military and civilian personnel in the Navy as well as restrictions on materials, supplies, equipment, facilities, etc., it becomes increasingly important that every effort be exercised to train the best candidates in the best possible way. Until recently, personnel in the Navy were assigned as instructors primarily on the basis of their length of sea-duty and rating; secondarily on their technical skill. It is very encouraging to note that the Navy now recognizes that these qualifications alone are not sufficient to become a good instructor, and that teaching is a separate and distinct skill. The Navy has also recognized that it is highly desirable to

coordinate applicable methods and techniques of civilian educational institutions with Navy methods. This is one of the major reasons for the establishment of the instructor training school throughout the Navy.

As previously stated, the peacetime mission of the Organized Naval Reserve is primarily that of a training organization. Its mission is to train personnel, both officer and enlisted, to fill certain billets which mobilization would require. It is the training of Reservists for advancement in Emergency Service Ratings which is the main job of the Naval Reserve Training Program, and specifically the job of training instructors in the Naval Reserve Training Centers.

Instructors billets in the Organized Naval Reserve are filled with many officer and enlisted personnel with little or no special instructor training. This statement is not made as criticism, but merely to point out the existing need of the Organized Naval Reserve Training Program for instructor training. The Navy Department has recognized this need and has directed the establishment of USNR Instructor Training Courses in each of the Continental Naval Districts. Observation has shown that adequate training organization and administration, as well as effective classroom teaching, have been lacking in this program. Instruction is not an easy task even when the best skills and techniques are employed, and it becomes a tremendously

difficult one when it is attempted without special training experience and cognizance of available training devices.

It should be emphasized at the outset that no amount of instructor training can replace ingenuity and knowledge of subject matter on the part of the instructor. Instructor training provides the instructor with proven methods and techniques that can be used to facilitate his job as an instructor and at the same time greatly assist the learner in carrying out his part of the program. Those who are now instructing can improve the quality of their work and make more efficient use of their available time by acquiring some of the skills, techniques and "tricks of the trade" that have been developed by educators through years of experience. Many individuals who "self-style" themselves as instructors believe that knowing a subject will automatically enable them to teach it. This is not true and the instructor who believes and follows this practice is likely to do the program more harm than good. For example, an officer who has served as a navigator or gunnery officer afloat is likely to assume that he will have no difficulty in getting his knowledge across to his students. Actually to know how to do something and to be able to teach it to someone else are two skills, which, though related, are entirely different. Many proficient engineers, for example, will experience difficulty in imparting their knowledge to others in a manner that can be easily understood. Many prominent

scholars who are renowned for their research, are notoriously poor teachers. Few people have the ability to teach effectively without some training in the teaching field. Men who have become efficient instructors have done so by training and putting into practice the learned fundamental principles of good teaching.

The Importance of Instructor Training

The most modern ships, weapons, equipment, etc., are of little value without trained personnel to operate them. The operational readiness of every unit in the Navy depends, in a large measure, on the knowledge and skill of every crew member. The essential knowledge and skill, as well as the attitudes of each individual member of a ship's company, are developed through effective training. To provide this training, the Navy assigns personnel in large numbers, allocates substantial funds, and establishes extensive facilities. To gain a realization and appreciation of the magnitude of the training program will necessitate a consideration of the scope of Navy training as well as a comparison with modern industrial training methods. Since good instructors wield a tremendous influence on large numbers of trainees, it is of prime importance that such instructors be well qualified in knowledge of their subject and in teaching ability. This requires very careful selection of the proper personnel and adequate training in good teaching techniques.

Evidence of the importance the Navy attaches to instructor training among its petty officers is that it has been included among the military requirements for all enlisted men. The specifications in the "Manual of Qualifications for Advancement in Rating" (NavPers 18068) require training as instructors. The specific requirements are as follows:

- Instructor personnel, using on-the-job training methods.
- Prepare for and conduct group instruction, adapting and using available lesson plans, training aids, or equipment.
- Plan and conduct drill, using equipment related to own rating.
- Prepare written outlines for own use of the following types:
 - Information sheets (outlining main points for understanding).
 - Job Sheets (outlining step-by-step procedure for specific job or operation).
 - Lesson Plans (over-all outline prepared as a guide for own use in conducting instruction).
- Measure trainees' progress and proficiency by means of performance tests, written tests, or oral questions of own composition.
- Prepare a list of knowledges and skills, required by personnel in own rating.¹

The efficiency of the Navy depends on each man doing his job as part of a competent team. Adequate training stimulates confidence and pride in superior accomplishment as well as continued interest in improvement. The Navy's instructors, commissioned and enlisted alike, are the key men

1. Education and Training Manual (NavPers 10827. Prepared by the Bureau of Personnel, January 1949. P. 202. United States Government Printing Office, Washington, D. C.

who provide the leadership and who motivate trainees to acquire the necessary knowledge, understanding, skill and attitudes required for the performance of their assigned duties.

The Navy training program is an extensive and continuing program. There is always training on board ship, whether it be in peacetime or during periods of national emergency. Operational readiness requires that all personnel on board can operate the ship and its equipment at maximum efficiency. The training program of the Navy does not begin or end on board ship, however. Shore based training is highly essential. Shore based training precedes and supplements shipboard training; it provides for economy of time and equipment; it allows for greater manipulative development, since trainees can tear down actual equipment without impairing operating conditions as would be the case aboard ship. As of 31 October, 1948, there were some 60,000 officers and enlisted personnel of the Navy in formal training at shore based schools alone.¹

Evaluation Defined

Before going further into this study it is considered advisable to define the term "evaluation". The concept of evaluation has been well stated by Wrightstone:

1. Education and Training Manual, prepared by the Bureau of Naval Personnel (NavPers 10827), dated January 1949; Chapter 14, p. 202.

Evaluation is a relatively new technical term, introduced to designate a more comprehensive concept of measurement than is implied in conventional tests and examinations. From the point of view of its functions it involves the identification and formulation of a comprehensive range of major objectives of a curriculum, their definition in terms of behavior, and the construction of valid, reliable, and practical instruments for appraising the specified phases of behavior.¹

Evaluation, as we shall use it in this study, is a process of appraisal. It implies the measurement of something against known standards in order to determine its relative value. If we are willing to accept this thinking, it follows then that the evaluation of instruction is dependent on a knowledge of what factors make an instructor a good one. In other words, before we can proceed to make an evaluation of teaching situations, it will be necessary to make an analysis of at least the major factors that contribute to the success of instruction and the instructor. Neither time nor space, however, will be devoted here to the presentation and discussion of the factors that are considered to contribute most to good instruction since these factors will be presented and discussed in detail in Chapter IV of this thesis. For the present, it suffices to say that these factors are well established and those considered most applicable to the 12ND USNR Instructor Training Course were

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1. J. Wayne Wrightstone, "Evaluation", in Encyclopedia of Educational Research, Walter S. Monroe, editor, (New York), The MacMillan Company, 1941, p. 468.

incorporated in the questionnaires used by the author in collecting the data for this thesis.

The Need for Evaluation

Continuous information regarding the needs of the trainee and the effectiveness of classroom activities in producing desired modifications in behavior is a necessary and integral feature of any planned educational program. The instructor notes the growth of interest and understanding as he develops a lesson, diagnoses the difficulties encountered by each pupil, and adapts his procedures accordingly to the needs of the class. On a larger scale, all revisions of curricular and instructional programs, or developments of informal school activities, are based on an evaluation of the effectiveness of the previous program. Such an evaluation may have been intuitive or explicit, formal or informal, adequate or inadequate. The importance of valid and continual information as to the growth and needs of each trainee in the process of adjusting the program of the school to his immediate requirements cannot be over-emphasized. These requirements can only be determined and met through continuous evaluation of the program.

It is a well established fact that the evaluation of instruction is one of the most effective means by which teaching performance of instructors may be improved. The good supervisor must realize that supervision and evaluation of instruction must be based on the actual teaching

situation. In this program of instructor training, the Organized Naval Reserve instructors need assistance. Too often they are left to carry the entire burden of their teaching responsibilities, unassisted and unsupervised. As previously stated, new instructors having had little teaching experience will make frequent mistakes by failing to take advantage of more effective teaching methods. Older instructors tend to become stereotyped to the same old routine, thereby failing to take advantage of better presentation through variation of teaching methods. They need to be stimulated and encouraged to try new techniques to provide more challenge and interest to their trainees.

The instructor who stops growing professionally, who becomes complacent and satisfied with his methods and techniques, will tend to become less and less effective as an instructor. Sound, intelligent and constructive evaluation is a MUST item in the Organized Naval Reserve Teacher Training Program, and every good supervisor must realize that in order for supervision of instruction to be effective and constructive, it must be based on a very definite and objective plan for evaluation.

Organization of the Remainder of the Thesis

Chapter II will contain factual data about the 12 ND USNR Instructor Training Course. This Chapter will also present the curriculum of the course and some personal history data of the instructors who teach the course.

Chapter III will present the methods and techniques used by the author in collecting the data to be used in this evaluation project. The various questionnaires will not be presented in this chapter since they will be contained in Chapter IV and also complete samples will be included in the Appendices to this thesis.

Chapter IV will present the results of this study. Each method and technique used will be discussed in detail along with the presentation of the results of the study.

Chapter V will present a summary of the study and conclusions along with recommendations for further study on this or similiar projects.

CHAPTER II

TWELFTH NAVAL DISTRICT USNR INSTRUCTOR TRAINING COURSE

The Organized Naval Reserve

The Naval Reserve, as established by the Naval Reserve Act of 1938, is a component of the United States Navy and consists of the Fleet Reserve, Organized Reserve, Volunteer Reserve, and the Merchant Marine Reserve. This study deals exclusively with the Organized Naval Reserve.

The broad policies of the Organized Naval Reserve plan of the Navy are the activation and training of a Naval Reserve adequate to meet the immediate needs of the Navy should an emergency be declared. This is set down in the purpose of the Naval Reserve as promulgated by the Navy Department and is stated thusly:

The purpose of the Naval Reserve is to provide a force of qualified officers and enlisted personnel who are available for immediate mobilization in the event of a national emergency, and who together with the active and retired personnel of the regular Navy can effectively meet the needs of the expanding Naval Establishment while an adequate flow of newly trained personnel is being established.¹

In order to establish and maintain this state of readiness, personnel of the organized Naval Reserve are required by the Navy Department to maintain efficiency by attending

1. Bureau of Naval Personnel Manual, p. 297, United States Government Printing Office, Washington, D. C.

regularly scheduled drills and by performing annual training duty.

The Bureau of Naval Personnel is charged with the instruction and training of the Naval Reserve and prescribes the details of instruction and training of various individuals and organizations of the Naval Reserve, both ashore and afloat. In carrying out this program, the Bureau of Naval Personnel requires the fullest cooperation and assistance of the other bureaus and offices of the Navy Department, including the Fleet Operations, Training Commands, and Fleet Training Centers. The Commandants of the Naval Districts, Chief of Naval Air Reserve Training, etc., under the supervision of the Bureau of Naval Personnel and other cooperating and assisting bureaus and offices, are charged with the instruction and training of the Naval Reserve under their cognizance.

Shipboard Instructor Training Schools

In April 1946, The Chief of Naval Operations directed the Chief of Naval Personnel to establish two "Shipboard Instructor Training Schools", one on the East Coast and one on the West Coast, in order that the gains in quality of training made during World War II would not be lost to the Naval Service.

The Chief of Naval Personnel established the East Coast school at the Naval Ship Yard, New York, N. Y., and the

West Coast school at the Naval Base, Treasure Island, San Francisco, California.

The first class was held at the Treasure Island school in July of 1946 and continued for some nine months with very poor attendance. The poor attendance can perhaps be accounted for by the fact that at the time the Pacific Fleet was stationed at Naval Base, San Diego, California, and with restrictions being placed on funds for travel expenses the issuance of orders to cover transportation expenses from San Diego to San Francisco and return was almost prohibitive. Another reason for the poor attendance was that the course was originally made available only to Executive Officers, Heads of Departments, and other officers holding down comparable billets. In 1947 the course was made available to all officer and enlisted personnel of the regular Navy, but this change in policy failed to provide the desired increase in attendance. Three months later the course was opened to the officer and enlisted personnel of both the Organized and Volunteer Reserve components of the Navy and the attendance immediately jumped to over the fifty mark. The reputation of the course offered at Treasure Island spread to other Naval Districts in the Western part of the United States and in 1948 the NINTH, ELEVENTH, and THIRTEENTH Naval Districts had many more people attending the course than did the TWELFTH Naval District.

The Chief of Naval Personnel, by letter to all Commandants of Naval Districts located within the continental limits of the United States, dated 14 December, 1948,¹ disestablished the "Shipboard Instructor Training Schools" at New York and Treasure Island and reestablished them at the U.S. Naval Base, Norfolk, Virginia, and U.S. Naval Training Center, San Diego, California.

Establishment of 12 ND USNR Instructor Training Course

The 12 ND USNR Instructor Training Course, was established under authority of the Chief of Naval Personnel letter² dated 14 December 1948 to the Commandants of all Continental Naval Districts. This letter directs the establishment, within each Continental Naval District of an appropriate instructor training course, of two weeks duration, for Naval Reserve Personnel.

Paragraphs 4 and 5 of the aforementioned letter are quoted:

4. Present plans call for the establishment of a two week instructor training course for selected officers and enlisted personnel of the Naval Reserve convening the first and third Mondays of each month at U.S. Receiving Station, Norfolk, Virginia, and U.S. Naval Training Center, San Diego, California. The capacity of each of these courses will be approximately ten officers and

-
1. The Chief of Naval Personnel letter PERS-4113-mr P11-1/A2-12, dated 14 December, 1948, to all Commandants, All Continental Naval Districts.
 2. Loc. cit.

thirty enlisted men per class. Further information relative to quotas will be promulgated by BuPers Circular Letter.

5. Because the capacity of these new courses will not be great enough to satisfy the need for instructor training in the Naval Reserve, each Commandant is urged to initiate action to establish, within his District, and under the supervision of the Educational Adviser and the District Director of Training, an appropriate instructor training course of two weeks duration for Naval Reserve Personnel.

Although the course under consideration is established as the Instructor Training Course for Organized Naval Reserve personnel of the TWELFTH Naval District there are, from time to time, both officer and enlisted personnel of the regular Navy, attached to Naval activities located within the TWELFTH Naval District, taking the course.

This course, which is under the supervision of the TWELFTH Naval District Director of Training, is given during each month, with each new class starting the first Monday of each month and continuing for a two weeks period.

Enrollment in the Course

Enrollment in the 12 ND USNR Instructor Training Course, with the exception of a small number of regular Navy personnel who take the course from time to time, is made up of officer and enlisted personnel, who are members of the Organized Naval Reserve Units within the TWELFTH Naval District and who have been duly ordered to the school by competent authority for two weeks active training duty. This

two weeks training period fulfills the Navy Department's requirement for annual training duty to be performed by members of the Organized Naval Reserve.

Enrollment has averaged forty-seven during the past twelve month period with the ratio being about 75% enlisted men and 25% officers.

Attention is invited to the fact that there is no established policy or procedure for the selection of trainees to take this course. Further comment on this statement will be made later in this thesis.

Listed below are the members of the Organized Naval Reserve, Marine Corps Reserve, and regular Navy who attended the 12 ND USNR Instructor Training Course during the month of February, 1950. The February 1950 class is considered typical of the classes since the schools were established in January 1949 as an Instructor Training School for Organized USNR personnel.

12 ND USNR INSTRUCTOR TRAINING COURSE FEBRUARY 1950 CLASS

1. ALLEN, C.J.	LT	USNRO	OrgSurDiv 12-53
2. ANDERSON, R.D.	ADE2	USNRO-1	NAVRESTRCENT DOUGLACUTAH
3. ANDREWS, F.W.	DCC	USN	PACRESFLT SAN FRAN
4. BAKER, G.F.	MM1	USNRO-1	DIV.12-34 HUNTERS POINT
5. BEASANT, F.G.	B MG2	USNRO-1	DIV.12-39 STOCKTON CALIF
6. BOLLER, L.C.	LT.	USNRO-1	ORGSURDIV 12-4
7. BOLTHOUSE, D.C.	LT.	USNRO-1	ORGLION 12-1
8. BOLTON, L.H.	SK1	USN	PACRESFLT
9. BROOKSHIRE, W.H.	GMACA	USNRO-1	CO. 12-3
10. CALL, F.W.	ADE1	USNRO-1	DIV.12-19 Batt 12-15
11. CARLTON, L.G.	EMP1	USNRO-1	SHIPREPAIR 12-1
12. CONANT, E.R.	LCDR	USNRO	ORGSURFAT 12-4

13. CRAM, G.H.	BMG3	USNRO-1	DIV 12-51
14. EAKS, R.	CEGC	USNRO-1	C.B. 12-3
15. EIB, J.E.	ETL	USNRO-1	DIV 12-11
16. ELLINGTON, C.L.	MML2	USNRO-1	ORGSURDIV 12-5
17. FINN, F.N.	LTjg	USNRO	C.B.Co. 12-4
18. FREDERICK, G.M.	TML	USNR	U.S.S. DENTUDA
19. GREEN, V.H.	DCW2	USNRO-1	ORGSURDIV 12-30
20. HARMON, R.E.	ET1	USNRO-1	ORGSURDIV 12-25
21. HART, E.R.	FC2	USNR	U.S.S. DENTUDA
22. HENDERSON, W.A. Jr	EM1	USN	MEDICAL RESEARCH
23. HEWELL, E.A.	EMC	USN	PACRESFLT
24. HOAGLAND, F.P.	LT.	USNRO	ORGSURDIV 12-53
25. HORN, W.L.	AK1	USN	PACRESFLT
26. KIMMEL, M.W.	RD1	USN	U.S.S. CHANDLER
27. KUNZ, D.S.	LT	USNRO	DIV 12-50
28. LILLYWHITE, R.L.	LCDR	USNRO	DIV 12-50
29. LINDSEY, J.E.	EN1	USN	U.S.S. SUNFISH
30. MEADOWS, E.E.	MEG2	USNRO-1	SHIP REPAIR 12-1
31. NANUT, J.J.	CSR2	USNR	DIV 12-26
32. PASSALACOQUA, J.A.	MEG1	USNRO-1	ORG SURDIV 12-6
33. POLSON, J.(n)	SGT.	MCR	12th INF BN USMCR
34. PRESS, E.R.	MMLCA	USNRO-1	ORGSURDIV 12-24
35. PRICE, R.L.	FC3	USN	U.S.S. CHANDLER
36. REDERE, F.A.	LT	USN	12nd T. I.
37. ROGERS, J.W.	MRC	USNRO-1	DIV 12-5
38. ROSE, W.A. Jr.	UTCA	USNRO-1	ORG C.B. 12-3
39. RYAN, W.B. Jr.	LT	USNR	CARGO HANDLING 12-4
40. SHIVER, V.D.	END2	USNRO-1	U.S.S. THEODORE CHANDLER
41. STEPHENSON, E.D.	END2	USNRO-1	DIV. 12-34
42. STOKELY, M.S. Jr.	LTjg	USNRO	ORGSUBDIV 12-9
43. WADE, R.R.	ETC	USNRO-1	DIV. 12-50
44. WALLE, R.H.	QM1	USN	PACRESFLT
45. WEDDLE, R.E.	PFC	MCR	12th INF BN. USMCR
46. KIMBLE, E.L.	BTG1	USNR	DIV 12-39

RECAPITULATION:

	USN	USNR	USMCR	TOTALS
Officer	1	10	0	11
Enlisted	10	23	2	35
TOTAL	11	33	2	46

Instructors

As of this date there are two full time and eight part time instructors on the staff of the 12 ND USNR Instructor Training School. One of the full time instructors is a Lieutenant Commander, USNR, who has been ordered by the Chief of Naval Personnel as Officer in Charge of the School. The other full time instructor is a civilian holding a permanent civil service appointment as Educational Adviser to the Director of Training, TWELFTH Naval District. The other eight instructors are specialists in their field who are called on to teach one or more fifty-minute periods during each two weeks course. Table I (page 21) contains some personal history data on each instructor.

Curriculum

As previously stated, the 12 ND USNR Instructor Training Course was established to satisfy the need for instructor training in the TWELFTH Naval District Organized Reserve program. The curriculum for this course is prescribed by the Bureau of Naval Personnel, Washington, D. C., with the local command having the prerogative of making minor changes in the curriculum when necessary and advisable. Normally, a major change in the curriculum would have the Bureau of Naval Personnel's stamp of approval before being placed into effect. Since the establishment of the course there have been several changes in the curriculum. Most of these

TABLE I

BACKGROUND OF INSTRUCTORS
12 ND USNR INSTRUCTOR TRAINING COURSE

	INSTRUCTOR									
	A	B	C	D	E	F	G	H	I	J
1. Status (O - Officers) (E - Enlisted) (C - Civilian)	O	O	C	O	E	O	C	C	C	C
2. Years High School Completed	4	2	4	4	4	4	4	4	4	4
3. Years College Completed	2	-	4	4	-	4	4	4	3	4
4. Years Graduate School Completed	-	-	2	-	-	-	2	2	-	1
5. College Major			Education	Economics		Public Speaking	Education	Physics	Electrical Engineering	Education
6. Years Active Duty in Military Service	10	23	7	10	18	6	5	3	1½	2
7. Years Experience as an Instructor	½	½	7	2	½	6	2	4	3	2
8. Full (F) or Part Time (P) Instructor at USNR 12 ND Instructor Training Sch.	F	P	F	P	P	P	P	P	P	P
9. No. Months Taught at USNR 12 ND Instructor Training School	3	7	48	20	3	12	24	24	36	24
10. No. Months Taught same course (or courses) at 12 ND USNR Instructor Training School	3	7	48	20	3	12	24	24	36	24

changes have been made on the basis of the students recommendations contained in their evaluation questionnaire they fill out when they complete the course.

Table II (page 23) contains the curriculum of the 12 ND USNR Instructor Training Course and listing the instructor that teaches each subject and the number of fifty minute periods devoted to each subject. The twenty-one subjects that the school staff considers the most important are indicated by an asterisk. These twenty-one subjects are the ones evaluated by the students upon completing the course.

The Classroom

Since the physical conditions surrounding instruction are recognized as an important factor in the total result, it is considered desirable to briefly describe the setting for the 12 ND USNR Instructor Training Course.

The course is given in Room 58, first floor of Building 7, Treasure Island Naval Base, and generally speaking the atmosphere is conducive to good training. Entrance to the classroom is at the rear thereby minimizing the effect of visitors who often come in for a few minutes during classes. The capacity of the classroom is approximately 125 students and the some seventy-five excess chairs stacked around the bulkheads present an undesirable appearance. It was learned, however, that these extra chairs are used five nights each week throughout the year by the Organized Naval Reserve

TABLE II

CURRICULUM OF THE TWELFTH NAVAL DISTRICT U.S. NAVAL
RESERVE INSTRUCTOR TRAINING COURSE

Course or Topic	Instructor	Number of 50-Min. Periods
Introduction and Registration	(A)	1
Student Introduction	(A)	1
*Educational Services	(B)	1
Pre-Test	(A)	2
*U.S. Navy Standard Organization	(A)	1
*Principles of Learning	(C)	3
*Reserve Training Curricula	(D)	1
Reserve Training Problems	(D)	1
*Personnel Classification	(E)	1
*Effective Voice Instruction	(F)	2
*How to Study	(C)	1
*Procurement of Training Aids	(G)	1
Tour of Training Aids Center	(G)	2
*Utilization of Training Aids and Training Films	(J)	3
*Application of Principles of Learning	(A)	5
*Methods of Instruction	(C)	1
*Job Analysis	(A)	1
Demonstration Method	(C)	1
Movie Methods of Instruction	(C)	1
Demonstration Lesson	(C)	1
*Evaluation of Instruction	(C)	3
*On the Job Training	(A)	1
*Officer Candidate Program	(C)	1
*Curriculum Construction	(C)	2
*Analysis of Lesson Plan	(C)	1
Movie Methods of Presentation	(A)	1
*Advancement in Rate	(B)	2
*Procurement and Utilization of Special Devices	(H & I)	3
*Projection Equipment Theory and Operation	(H & I)	3
*Value, Use and Construction of Tests	(C)	2
Effective Instructor Employment	(C)	1
Re-Test	(A)	2
Preparation Course Evaluation	(A)	1
Presentation of Lesson Plans	(C)	2
Discussion of Test	(A & C)	2
Discussion of Course Evaluation	(A)	1
	TOTAL	59

Units of the San Francisco area, who hold their weekly meetings at the Treasure Island Naval Base, and that they are stacked along the bulkheads during the day to make more room for the Instructor Training students.

The instructor stands on a platform about eight inches from the deck and has a good view of all students at all times. The classroom walls are free from distracting charts and posters. The clock is located in the rear wall so that instructors can easily check their timing and yet not distract the attention of the students. The movie screen is of the roller type mounted just above the blackboard at the front center of the classroom. In addition to four windows along the right side of the room there are two exhaust fans which assist in providing better ventilation. At high speed, however, these fans are a definite distraction, but the instructors were careful to adjust the fans to low speed immediately before each class. The chairs are of the theater type and, while comfortable, they are not the most suitable for note taking. Members of previous classes have been almost unanimous in their recommendations that these chairs be replaced with chairs having arm rests.

Lighting in the room is not what it should be. The shades are drawn most of the day to keep the sun out and the room is lighted artificially. At the same time the shades are drawn the windows are opened to permit fresh air to circulate throughout the room and the loose window

shades are constantly flapping around creating a distracting feature to instruction.

The administration seems highly sympathetic toward the abovementioned problems and is continually trying to improve the physical conditions surrounding the classroom. Progress, however, is more or less tied in with budgetary limitations and the administration is proceeding on the basis of assigning remedial priority to those items considered to be the most distracting to the program.

CHAPTER III

METHODS AND TECHNIQUES USED TO COLLECT THE DATA

In most situations, the evaluation of instruction can be made much more objective and specific through the use of a guide in the form of a check list or rating scale. This type of a guide may be used by the supervisor, fellow instructor, outside observer, trainee, or by the instructor himself. The guide should always give thorough consideration to the following general areas:

- Physical aspects of the classroom (or shop area).
- Personal characteristics of the instructor.
- The instructors knowledge of the subject matter.
- The instructors preparation and presentation of the lesson.

For use in Navy training, the Bureau of Naval Personnel has prepared a check list for use in evaluating instructor training. This check list takes into consideration the four general areas listed above. The Bureau of Naval Personnel has also published and distributed a questionnaire "Self-Evaluation Test for Instructors" which is used extensively throughout the Navy for instructor self-evaluation. It is not considered necessary to go into detail here and present and discuss these questionnaires since they will be presented and thoroughly discussed in Chapter IV of this thesis.

THE CONSTITUTION OF THE UNITED STATES OF AMERICA

WE the People of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquillity, secure the Blessings of Liberty to ourselves and our Posterity, do hereby adopt this Constitution for the United States of America.

Article I

Section 1

All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

Section 2

Clause 1

The House of Representatives shall be composed of Members chosen every second Year by the People of the several States, and the Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

Section 3

Clause 1

The Senate of the United States shall be composed of two Senators from each State, chosen by the Legislature thereof, for six Years; and each Senator shall have the Qualifications requisite for Senators of the most numerous Branch of the State Legislature.

Section 4

Clause 1

The Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

Section 5

Clause 1

The House of Representatives shall be composed of Members chosen every second Year by the People of the several States, and the Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

Article II

In carrying out the project of evaluating the 12 ND USNR Instructor Training Course the following methods and techniques were used:

A. Instructor Evaluation Questionnaire.

The author observed the entire course and filled out an instructor evaluation questionnaire on each instructor for each class he taught. For this evaluation a modified form of the Bureau of Naval Personnel's Form NAVPERS 16310A, which is specifically designed to meet the needs of instructor evaluation, was used. This form and the results of this evaluation will be presented and discussed in detail in Chapter IV of this thesis. A complete sample of this form is contained in this thesis as Appendix A. NAVPERS Form 16310A was also used in an attempt to evaluate the produce of the 12 ND USNR Instructor Training Course. In other words, this questionnaire was forwarded to Commanding Officers of graduates of this school with the request that they be filled out based on the graduate's ability as an instructor. Two copies of the questionnaire were sent to these Commanding Officers with the request that one be filled out based on the graduate's ability as an instructor prior to taking the course and the other one to be filled out based on the graduate's ability as an instructor

after taking the course. In the selection of graduates to be evaluated consideration was given to both officer and enlisted personnel of the various branches of the Naval Service who had had an opportunity to perform a reasonable amount of instructing duty after completing the course. Results of this survey will be presented and discussed in Chapter IV of this thesis.

B. Student Evaluation Questionnaire.

Upon completing the course, the trainees are required to fill out an evaluation questionnaire covering what the school authorities consider to be the twenty-one main topics of the course. This questionnaire is designed to get the trainees' opinion on the value of these twenty-one topics to the trainee; to get his opinion on the amount of time devoted to each topic; and finally, to get his opinion on clearness of presentation of the topics. The school has records of these questionnaires since the school's establishment. This data was reviewed, analyzed, interpreted, and will be found presented in Chapter IV of this thesis. A complete sample of the student questionnaire is contained in this thesis as Appendix B.

C. Objective Examination Scores.

During this course, the trainees are given two written objective examinations which are based

on the content of the course. These two examinations are identical. One of the examinations, called the "pre-test", is given at the beginning of the course, and the other, called the "re-test" is given at the end of the course. The trainee, however, is never advised that he will be given the same examination upon completion of the course. The examination consists of 100 true-false questions; 40 multiple choice questions; and 25 completion questions. The comparative scores between the two tests will be a rough indication of the effectiveness of the instruction. The school has records of these test scores since its establishment and they will be presented in table form in Chapter IV of this thesis.

D. Instructor's Self-Evaluation.

As a final evaluation the author had each instructor on the staff of the 12 MD USNR Instructor Training School evaluate himself. In this evaluation it was assumed that the instructor knew his subject matter thoroughly. For this evaluation a modification of the Bureau of Naval Personnel's Form "Self-Evaluation Test for Instructors"¹ was used. This form, together with the results of the instructor self-evaluation, will be presented in detail in

1. Bureau of Naval Personnel Training Bulletin, dated 15 March 1946.

Chapter IV of this thesis. A complete sample of this form is contained in this thesis as Appendix C.

In addition to the above listed methods and techniques, the author had each instructor on the staff of the 12 ND USNR Instructor Training School fill out a personal history questionnaire on himself. This information was presented in Chapter II of this thesis and further comment will be made in Chapter IV. A complete sample of the form used to collect this data is contained in this thesis as Appendix D.

In all the above listed questionnaires, space was provided for comments in addition to the specific questions asked. The author has found many of these comments, especially those made by the instructors, the trainees, and the Commanding Officers of the graduates, to be very interesting, and has selected many of these comments, when considered material to this evaluation project, and presented them in Chapter IV of this thesis.

CHAPTER IV

RESULTS OF THE STUDY

In this chapter will be found the results of the study. Each technique and method used in this evaluation project will be presented and discussed separately. In addition, the reader will find comparisons made of the results of the various techniques used with appropriate comments on each. This chapter also contains comments made by the instructors of the course as well as comments made by trainees, upon completing the course, and by commanding officers of graduates of the course.

Instructor Evaluation Questionnaire

The author observed each instructor during the class periods throughout the course and tabulated his findings by means of a questionnaire. For this evaluation, a modified form of Bureau of Naval Personnel's Form NAVPERS 16310A, which is specifically designed to meet the needs of instructor evaluation, was used. In tabulating the results of this evaluation, the twenty-five most applicable items were selected and each assigned a maximum score of 4.0 and a minimum score of 2.0. The rating assigned is as follows:

- 2.0 Unsatisfactory
- 2.5 Below average
- 3.0 Average
- 3.5 Above average
- 4.0 Outstanding

The maximum score for any instructor under the above rating scale for all 25 items would be 100.

The 25 items selected for this evaluation are as follows:

I. Physical Aspects of Classroom:

1. Light, heat, ventilation.
2. Arrangement of chairs, tables, desks, equipment.
3. Distractions minimized.

II. Physical Aspects of Instructor:

4. Voice.
5. Dress.
6. Poise, mannerisms, etc.

III. Did the Instructor:

7. Introduce the lesson adequately.
8. Follow an approved lesson plan.
9. Use step by step lesson presentation.
10. Emphasize the important points of the lesson.
11. Relate the lesson to previous lessons, etc.
12. Utilize accepted principles of learning.
13. Maintain proper relationship with trainees.
14. Show enthusiasm and keep interest of class.
15. Show confidence and maintain discipline.
16. Make use of good questioning procedure.
17. Provide for student to "learn by doing".
18. Make effective use of proper teaching methods.
19. Make efficient use of proper training aids.
20. Utilize summaries and effective drills.
21. Make effective assignment for next lesson.

IV. Did the Trainees:

22. Understand the objectives of the lesson.
23. Appear to be interested by participating in class discussion and asking significant questions.
24. Develop the necessary skills.
25. Appear to be working to the extent of ability.

These item scores representing the author's evaluation of each instructor on the 25 items listed above have been tabulated and presented in Table III (page 34).

The following rating was assigned to the total scores made on the 25 items:

Score of 90 or above	considered	outstanding
80 - 89	"	above average
70 - 79	"	average
62 - 69	"	below average
Below 62	"	unsatisfactory

Based on the above rating scale three of the instructors fall in the "average" grouping; 6 instructors are rated "above average"; and one instructor is rated "outstanding".

For a review of the questionnaire used for this evaluation the reader is referred to Appendix A of this thesis.

Instructor Self-Evaluation

The ten instructors on the staff of the 12 ND USNR Instructor Training Course were asked to fill out a self-evaluation questionnaire. This questionnaire, consisting of twenty-five questions based on established requirements for a good instructor, was originally prepared by the Bureau of Naval Personnel and is used extensively throughout the Navy for instructor self-evaluation. It must be pointed out that this questionnaire assumes that the instructor has a thorough and complete knowledge of the subject matter and therefore makes no provision for measuring this important instructor requirement. Point scores ranging from

TABLE III

INSTRUCTORS EVALUATION SCORES BASED ON AUTHOR'S OBSERVATION

Number of 50-Minute Periods Taught		INSTRUCTORS										Average Score all Instructors Score	
		A	B	C	D	E	F	G	H	I	J		
		19	3	22	2	1	2	3	3	3	3		
Item	Maximum Score												
1	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.50	87.50
2	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.50	87.50
3	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.50	87.50
4	4	3.0	3.0	4.0	3.5	3.0	4.0	3.5	3.5	3.0	4.0	3.45	86.25
5	4	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.00	100.00
6	4	3.5	3.5	4.0	4.0	3.0	4.0	4.0	4.0	3.0	4.0	3.70	92.50
7	4	3.5	2.5	4.0	3.0	3.0	3.5	3.5	3.5	3.0	4.0	3.35	83.75
8	4	3.5	3.0	4.0	3.0	2.5	3.0	3.5	3.5	2.5	3.5	3.15	78.75
9	4	3.5	3.0	4.0	3.0	2.5	3.0	3.5	3.0	2.5	3.0	3.10	78.50
10	4	3.0	3.0	4.0	3.5	2.5	3.5	3.0	3.5	3.0	3.5	3.25	81.25
11	4	3.5	3.0	4.0	3.0	3.0	3.0	3.0	3.5	3.0	3.0	3.15	78.75
12	4	3.5	2.5	3.5	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.10	78.50
13	4	3.5	3.0	4.0	3.0	3.0	3.5	3.0	3.0	3.0	4.0	3.30	82.50
14	4	3.0	3.0	4.0	3.0	3.5	3.5	4.0	3.0	3.0	4.0	3.40	85.00
15	4	3.5	3.0	3.5	3.5	3.0	3.5	3.0	3.0	3.0	3.0	3.20	80.00
16	4	2.5	2.5	3.5	3.0	3.0	3.0	3.0	3.5	2.5	4.0	3.00	75.00
17	4	3.5	3.0	3.5	3.0	3.0	3.0	3.0	3.5	3.0	3.0	3.10	78.50
18	4	3.0	2.5	4.0	3.0	2.5	3.0	3.0	3.0	3.0	3.5	3.05	76.25
19	4	3.0	3.0	3.5	3.5	2.5	3.0	4.0	3.5	3.0	4.0	3.25	81.25
20	4	2.5	3.0	4.0	3.5	3.0	3.5	3.5	3.5	2.5	3.5	3.20	80.00
21	4	3.5	3.0	3.5	3.0	3.0	3.0	3.5	3.0	3.0	3.5	3.20	80.00
22	4	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.0	3.5	3.15	78.75
23	4	3.0	3.0	4.0	3.0	3.5	3.0	3.0	3.0	2.5	3.5	3.35	83.75
24	4	3.0	3.0	3.5	3.0	3.0	3.0	3.0	3.0	2.5	3.5	3.05	76.25
25	4	3.0	3.0	3.5	3.0	3.0	3.0	3.5	3.0	2.5	3.5	3.10	78.50
Totals	100	82	73	94	81	75	89	88	83	74	89	82	82

1 to 12 have been assigned each of the 25 questions with total maximum score equalling 100 points.

Listed below are the 25 questions contained in the abovementioned questionnaire with maximum point score for each question. A sample of this questionnaire, which contains a more detailed breakdown of each question, is contained in this thesis as Appendix C.

<u>Question</u>	<u>Score</u>
1. Do I check the physical aspects of my class-room, shop, or laboratory?.....	4
2. Do I introduce myself properly at the first session of the class?.....	1
3. How well do I learn names?.....	3
4. Do I get essential information regarding each trainee?.....	4
5. Am I punctual and do I expect punctuality?.....	2
6. Am I an example of good military bearing and neatness?.....	2
7. Do I address the class effectively?.....	2
8. Am I careful with words?.....	4
9. Do I develop a satisfactory lesson plan for each class?.....	12
10. In the classroom and shop do I limit talking to a minimum so that the men can get to work?...	3
11. Do I keep my classroom shipshape at all times?.....	2
12. Do I avoid waste of time, keeping every man occupied with constructive work?.....	3
13. Do I keep my men at work until the end of the period?.....	2

<u>Question</u>	<u>Score</u>
14. Am I human yet dignified?.....	5
15. Do I prepare teaching aids before class?.....	3
16. Do I get the fullest possible use out of training aids?.....	4
17. Do I create learning situations?.....	5
18. Do I stress practical applications?.....	3
19. Do I let man 'learn by doing'?.....	10
20. Does every man know what is to be accomplished each period?.....	3
21. Do I observe sound principles of learning?.....	3
22. Am I making every effort to meet the needs of individuals?.....	7
23. Do I summarize at the end of each period?.....	4
24. Do I use the most effective type of examination?.....	4
25. Do I make full use of test results?.....	<u>5</u>
Maximum Score	100

The instructors' self-evaluation questionnaires have been tabulated and the scores are presented in Table IV. This table shows that three of the instructors rated themselves "average", six rated themselves "above average", and one rated himself "outstanding". Average score for all the instructors, based on their own evaluation, was 83.2 which, according to the grouping assigned, is "above average".

Comparison of Instructors Self-Evaluation with Author's Evaluation of Instructors

Table V, (page 38) shows a comparison between the author's evaluation scores of instructors and the instructors'

TABLE IV
INSTRUCTORS SELF EVALUATION SCORES

Item	INSTRUCTORS' SCORES										Average Score	Maximum Score
	A	B	C	D	E	F	G	H	I	J		
1	3	4	4	3	3	3	4	3	3	4	3.4	4
2	1	1	1	1	1	1	1	1	1	1	1.0	1
3	3	0	1	3	2	2	1	3	3	2	2.0	3
4	4	2	2	3	3	3	3	4	3	3	3.0	4
5	2	2	2	2	2	2	2	2	2	2	2.0	2
6	2	2	2	2	2	2	2	2	2	2	2.0	2
7	2	2	2	2	2	2	2	2	2	2	2.0	2
8	2	3	4	3	2	4	4	3	3	4	3.2	4
9	9	10	11	10	8	10	10	10	6	12	9.6	12
10	3	2	3	2	2	3	2	3	2	2	2.4	3
11	2	2	2	2	2	2	2	2	2	2	2.0	2
12	3	2	3	2	2	3	3	2	2	2	2.4	3
13	2	2	2	2	2	2	2	2	1	1	1.8	2
14	3	5	5	5	4	4	5	5	4	5	4.5	5
15	3	3	3	3	3	3	3	3	3	3	3.0	3
16	4	4	4	4	2	4	4	4	3	4	3.7	4
17	4	3	5	5	3	5	4	4	2	3	3.9	5
18	3	3	3	2	3	3	3	2	2	3	2.7	3
19	10	5	10	8	8	7	9	8	8	8	8.1	10
20	2	3	3	3	3	3	3	2	2	3	2.7	3
21	2	1	3	3	2	3	2	2	3	3	2.4	3
22	6	5	7	6	4	5	7	6	6	5	5.7	7
23	2	3	4	3	2	4	3	2	2	4	2.9	4
24	4	2	4	3	2	4	3	3	3	3	3.1	4
25	5	3	5	4	3	3	4	4	4	4	3.9	5
Totals	86	74	95	89	72	87	89	84	74	88	83.2	100

Score of: 90 or above considered outstanding
80 to 89 " above average
70 to 79 " average
62 to 69 " below average
Below 62 " unsatisfactory

TABLE V

COMPARISON OF INSTRUCTOR'S SELF-EVALUATION
WITH AUTHOR'S EVALUATION OF INSTRUCTORS

INSTRUCTOR	MAXIMUM SCORE	AUTHOR'S EVALUATION BASED ON PERSONAL OBSERVATION	INSTRUCTOR'S SELF EVALUATION
A	100	82	86
B	100	73	74
C	100	94	95
D	100	81	89
E	100	75	72
F	100	89	87
G	100	88	89
H	100	83	84
I	100	75	74
J	100	89	88

Score of 90 or above considered outstanding
 80 to 89 " above average
 70 to 79 " average
 62 to 69 " below average
 Below 62 " unsatisfactory

self-evaluation scores. It is interesting to note that there is a very close relationship between these two sets of scores. This fact becomes even more interesting considering that the two evaluation questionnaires used were not identical in composition nor in point scoring, although both the questionnaires were specifically designed to objectively evaluate instruction. (For comparison reference is made to Appendix A and C).

Comparison of Instructors' Background with their Evaluation Scores

Table VI (page 40) is a comparison of the instructors' academic background and teaching experience with their self-evaluation scores, and the evaluation scores of the author. It is interesting to note that this table shows a close relationship between the instructor's academic background and his evaluation scores. Two of the three instructors that rated themselves "average" have no college training, with the third instructor having three years of college training in a technical field (see Table I, Chapter II). It is also interesting to note that the four highest evaluation scores, based on the author's evaluation, went to the only four instructors with college graduate work. It is also interesting to note that, with the exception of Instructor "D", the highest scores based on the instructor's self-evaluations went to the four instructors with college graduate work. Another interesting feature of this table is that

TABLE VI

EDUCATIONAL BACKGROUND OF INSTRUCTORS
AND THEIR EVALUATION SCORES

	INSTRUCTOR									
	A	B	C	D	E	F	G	H	I	J
1. Years High School Completed.	4	2	4	4	4	4	4	4	4	4
2. Years College Completed.	2	-	4	4	-	4	4	4	3	4
3. Years Graduate School Completed.	-	-	2½	-	-	-	2	2	-	1
4. Years Experience as an Instructor.	½	½	7	2	½	6	2	4	1½	2
5. No. Months Taught at USNR 12 ND Instructor Training School.	3	7	48	20	3	12	24	24	36	24
6. No. Months Taught same Course at USNR 12 ND Instructor Training School.	3	7	48	20	3	12	24	24	36	24
7. Instructor's Self-Evaluation Score.	86	74	95	89	72	87	89	84	74	88
8. Instructor's Evaluation Score Based on Author's Observation.	82	73	94	81	75	89	88	83	75	89

the only instructor considered to be "outstanding" on basis of both evaluations is also the instructor with the most teaching experience and with the most college training. It is pointed out that this same instructor's college major was in the field of Education.

Although the number of instructors under consideration here is not large enough to draw any concrete conclusions, it can be pointed out that this study shows a definite relationship between academic background and teaching experience on the one hand and success as an instructor on the other.

Instructor Comments:

1. Looking at the course objectively I believe it to be of great value to "would-be" instructors, and that it aids in no small measure in carrying out the mission of the TWELFTH Naval District's Organized Reserve Training Program.
2. The Instructor Training Course, 12 ND, should be a required course for all instructors in the TWELFTH Naval District Organized Reserve Program.
3. The course is well adapted to the needs of the students because it is practical in scope and aimed at the working level of instructors rather than being theoretical. This course has shown considerable improvement since its establishment largely because we have considered the suggestions for improvement made by the students from class to class. It is considered that the course is of great value to the trainees since it is, insofar as possible, designed to meet the needs of the instructor in this program. In general, the sessions are carefully planned and skillfully presented. Completion of the Special Devices display

area located adjacent to the classroom in Building 7 will bolster interest in that subject as previous classes have been pretty much in agreement that the subject is very interesting and valuable, but of such technical nature that it is difficult to present in an interesting manner. I should like to point out that of the some 15 topics I teach the one that I should know the most about, "Officers Candidate Program", is the one indicated by the students as being the lowest in clearness of presentation. The reason I offer for this is that on all the other 14 units I prepare a well thought out lesson plan and for the "Officers Candidate Program" I have never prepared a lesson plan.

4. I would recommend that more time be devoted to training as it specifically applies to the particular conditions of Reserve Training. This comment, of course, relates only to the units or topics which I present to the trainees.
5. Insofar as my contribution to this course is concerned I strongly feel that more time should be provided for student participation. All of us who plan on a military career as enlisted or officer personnel must know how to instruct. We may not be assigned specific instructor duties like the teaching of a group of people a specific subject, nevertheless we are instructors in all our activities since we are either purposely setting examples for our subordinates or we are being watched by them as we go about our daily tasks. Therefore, we must strive to be effective instructors. The quality of instruction will determine the quality of the service. Training in instruction should be at least one year course, but we know this is not possible in the Organized Naval Reserve Program. There is no such thing as "a poor student" there are only "poor instructors".

This course, considering the limitations within which we have to work, is the most down to earth school I have ever been affiliated with. I highly recommend this course to all instructors of this program.

6. A most excellent course in all respects.
7. My contribution to this course is somewhat reduced in effect due to the lack of time. On the other hand, having observed the entire course at one time or another, I feel that it is a most excellent course and one which I would highly recommend that all Instructors, both Reserve and Regular Navy Officers and Enlisted men take.

Commanding Officers' Evaluation of Graduates

In an attempt to evaluate the product of the 12 ND USNR Instructor Training Course, viz.; the graduate of the course, questionnaires were forwarded to Commanding Officers of graduates of the course. For this evaluation, the same questionnaire used by the author when observing the instructors in action was used. Two copies of this questionnaire for each graduate under consideration were mailed to their Commanding Officers with the request that one questionnaire be filled out based on the graduate's ability as an instructor prior to attending the course, and the other questionnaire to be filled out based on his ability as an instructor subsequent to taking the course. Only graduates who had completed the course and had time to return to their home activity and perform instruction duties for at least three months were considered. The author was very discouraged with the response received from this questionnaire. Out of some 600 questionnaires sent out less than fifty were returned. Seventy-five percent of those returned indicated that the graduate had never performed instruction

duties prior to nor subsequent to taking the course. Three replies indicated that the records of the activity failed to show that the graduate had ever been attached to the activity. Four questionnaires stated that the graduate had dropped out of the Organized Naval Reserve Program.

A follow-up on these questionnaires in an effort to get a more favorable response was prevented by the Chief of Naval Personnel letter,¹ dated 14 March 1950. Paragraph 3 of this letter is quoted:

3. Students are advised to select thesis topics which require no field research in naval activities especially where the student is not able to personally present and administer the data gathering instrument. In the event that mass data is required it should be obtained from files of the Bureau with minimum man hours in assembly or if not there available, it may be gathered by means of individually addressed questionnaires provided that the questionnaire is first cleared in its final form by the Bureau (Pers-15) and that the individuals addressed are either personally known to the student or their names and addresses are furnished by the Bureau. In no case will requests for the mass gathering of data be addressed directly to Naval activities. Any such request must be made through the Bureau (Pers-15) where the absolute need for such additional field work will be carefully scrutinized.

The author considers the response received from this questionnaire to be insufficient for tabulation and presentation in tabular or graphic form in this thesis. He does, however, consider it desirable to include some of the comments

1. BuPers Ltr. Pers-15-slb, to all Postgraduate Students, in Personnel Administration and Training, dated 14 March 1950.

made by Commanding Officers of the graduates reported on.

1. This is a rather poor unit to use as material for your thesis. Lectures are given by the members and are intermittent. Subject man has only lectured twice since I have been here. Most of our time is spent on working problems. We discontinued lectures shortly after I came to the unit as it appeared the members had heard "everything" and were tired of lectures and wanted a change. We have a lecture about once a quarter - an outside speaker.
2. Showed marked improvement in poise, confidence, and smoothness of presentation. Better organization and presentation of material.
3. Before taking course:
 Possessed thorough knowledge of subject.
 Lacked motivation, lesson had no punch, weak presentation, no lesson plan.
 Introduction not effective.
 Demonstration not planned, poor review.
 Use of training aids not effective.
 Not thoroughly familiar with aids.
 Lack of poise and confidence.
 Failed to arouse class interest.
After taking course:
 Very good preparation and well organized;
 genuine interest and good motivation; followed lesson plan; finished on time.
 Demonstration well planned; all plans made in advance; thoroughly familiar with training aids.
 Made students accountable for subject matter.
 Advised them in advance of a quiz.
 Showed decided improvement in poise, confidence, etc.
4. The records of this office show that subject man has never been attached to this activity.
5. Subject man did not perform instruction duties prior to attending the course nor has he performed instruction duties since attending the course some five months ago.

It should also be stated that of the graduates evaluated, their Commanding Officers indicated an average increase of 25% in ability as an instructor subsequent to taking the course.

Student Examination Scores

As previously stated in Chapter IV, each student, at the beginning of the course, is given a written objective examination based on the content of the course. This examination, called the "Pre-test", consists of 100 true-false questions; 40 multiple choice questions; and 25 completion questions, a total of 165 questions.

Upon completing the course, the students are again given this same test, now called the "Re-test". At no time during the course are the students advised that they will be given the same examination when they complete the course.

Scores made on these two tests during the twelve month period, April 1949 through March 1950, have been tabulated and presented in Table VII (page 47).

It can be seen from Table VII that an average of 47 students attended these twelve classes and scored an average of 124 points out of a possible 165, or 75.1%, on the "Pre-test" and an average score of 147, or 88.1%, on the "Re-test". The 13% improvement in test scores is not considered conclusive evidence of good instruction. Analyzing the results, however, show that most of the improvement was recorded in those students making the lower scores on the

TABLE VII

COMPARISON OF STUDENTS "PRE-TEST" AND "RE-TEST"
SCORES OVER A TWELVE MONTH PERIOD

Month Test Given	Number Taking Tests	Maximum Test Score	Average "Pre-Test"		Average "Re-Test"		Average Increase	
			Score	%	Score	%	Score	%
April 49	45	165	120	72.6	146	88.5	26	15.9
May "	42	165	113	68.5	136	82.5	23	14.0
June "	63	165	120	72.6	143	86.6	23	14.0
July "	59	165	128	77.5	149	90.5	21	13.0
Aug "	64	165	132	80.0	151	91.5	19	11.5
Sept "	50	165	128	77.5	149	90.5	21	13.0
Oct "	43	165	123	74.3	148	89.7	25	15.4
Nov "	52	165	122	74.0	149	90.5	27	16.5
Dec "	46	165	127	77.0	150	91.0	23	14.0
Jan "	27	165	126	76.3	144	87.2	18	10.9
Feb "	47	165	122	74.0	149	90.5	27	16.5
Mar "	26	165	130	78.7	153	92.6	23	13.9
12-Month Average	47	165	124	75.1	147	88.1	23	13.0

"Pre-test", with several cases showing as much as 60% improvement. It should be pointed out that many students made rather high scores on the "Pre-test" and, therefore, left little room for improvement as measured by the "Re-test".

Assuming that the examination questions were not too easy, it can be concluded that, where twelve classes average 88.1% on their final examinations, it is some indication of above average instruction.

For a review of the questionnaire used in this evaluation the reader is referred to Appendix D of this thesis.

Student Evaluation Questionnaire

Upon completing the course each student is required to fill out an evaluation questionnaire. This questionnaire is designed to get the students' views on their overall impression of the course as well as to get their specific evaluation on what the Staff considers to be the 21 most important topics or subjects contained in the curriculum. The students are requested to specifically indicate the following on these 21 subjects:

Value to student -

Above average value
Average value
Below average value

Amount of time devoted to topic -

Excessive
Adequate
Inadequate

Clearness in presentation -

Above average
Average
Below average

The 21 topics considered by the School's Staff to be the most important are:

1. Principles of Learning
2. Methods of Instruction
3. Analysis of Lesson Plans
4. Job Analysis
5. Value, Use, and Construction of Tests
6. Effective Voice Instruction
7. Evaluation of Instruction
8. Application of Principles of Learning
9. Curriculum Construction
10. How to Study
11. On the Job Training
12. Utilization of Training Aids
13. Officer Candidate Program
14. U.S. Navy Standard Organization
15. Reserve Training Curricula
16. Procurement, Utilization of Special Devices
17. Educational Services
18. Procurement of Training Aids
19. Advancement in Rate
20. Personnel Classification
21. Projection Equipment

These questionnaires have been reviewed over a twelve-month period and students' opinions have been tabulated and presented graphically in Graphs 1 (page 50), 2 (page 51), and 3 (page 52).

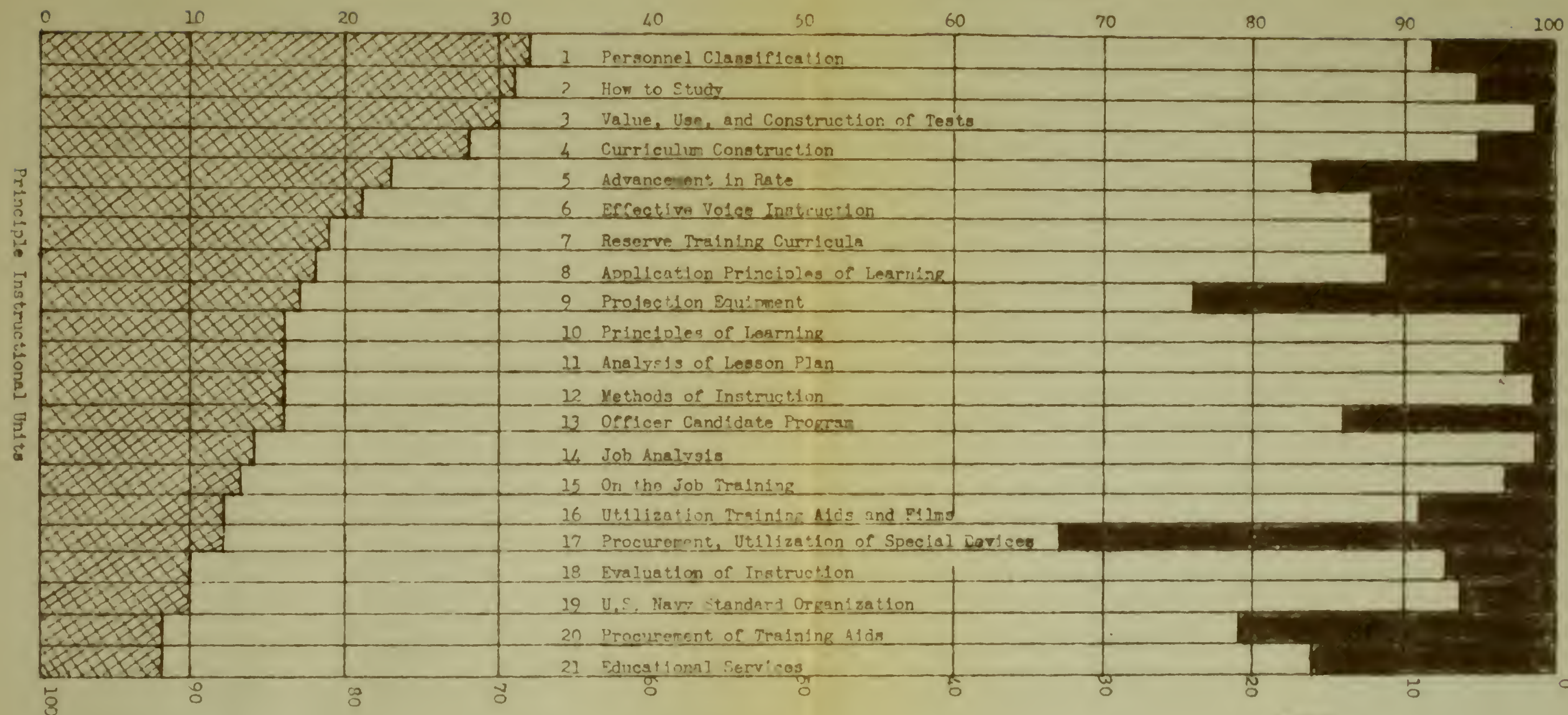
Student Comments

The student evaluation questionnaire also provided space for general comments and in the majority of cases the students offered comments many of which are considered worth reporting:

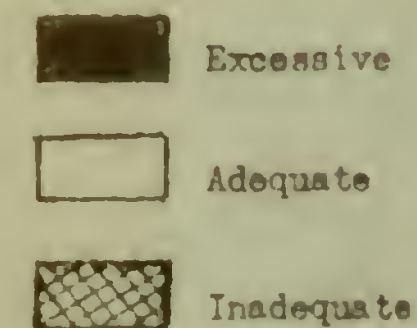
1. The course was well presented and showed that it had been given a lot of thought and preparation. The Instructors were well versed in the subjects they presented. I feel that by having taken the course I can better impart knowledge of stevedoring to those that I might be called upon to instruct.

GRAPH 1

Percentage of Trainees indicating "Time Spent" as being excessive, adequate, inadequate

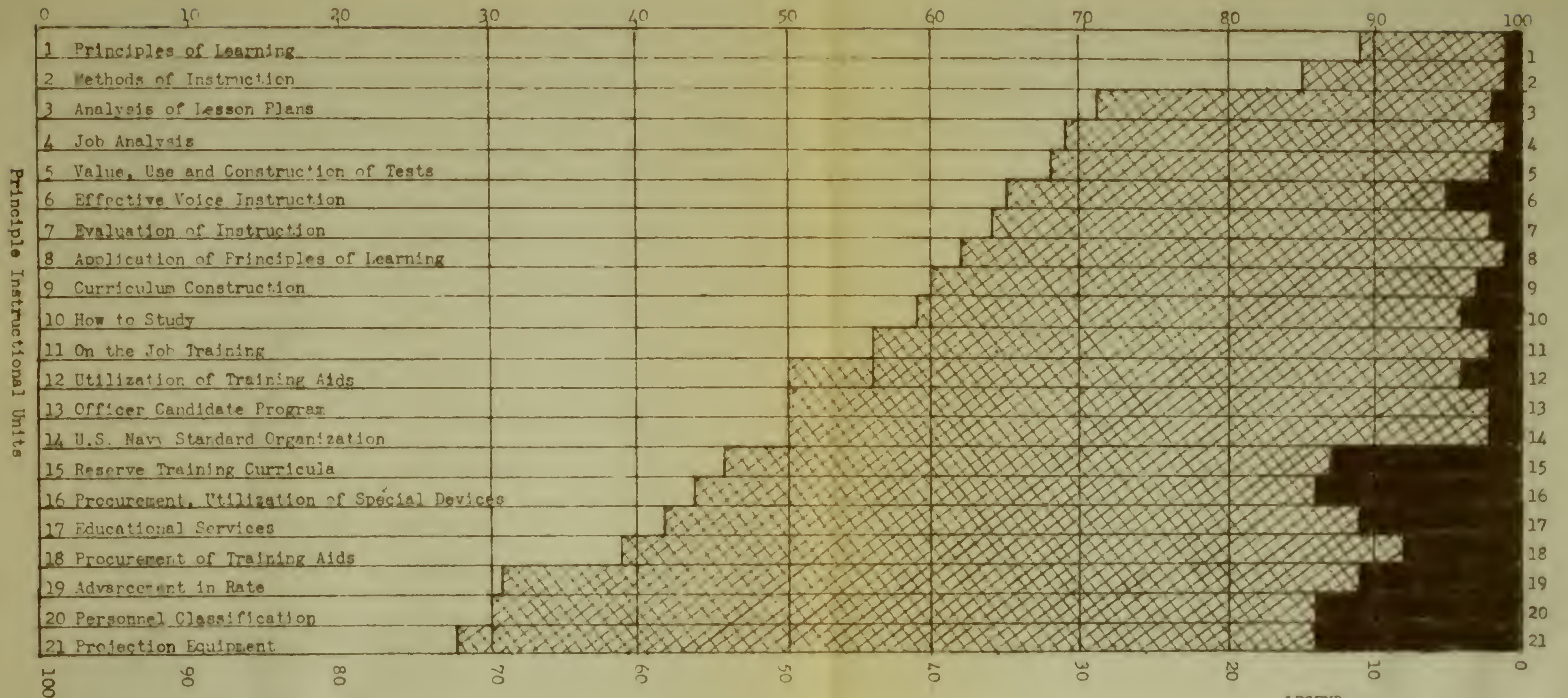


LEGEND:

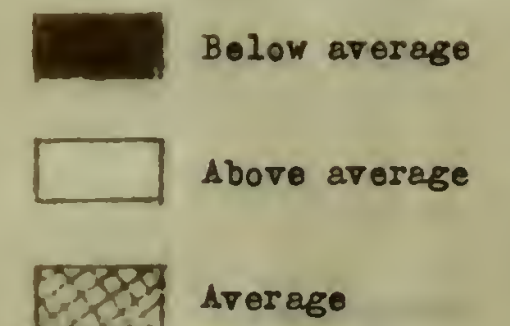


GRAPH 2

Percentage of Trainees Indicating "Clearness of Presentation" as being above average, average, below average

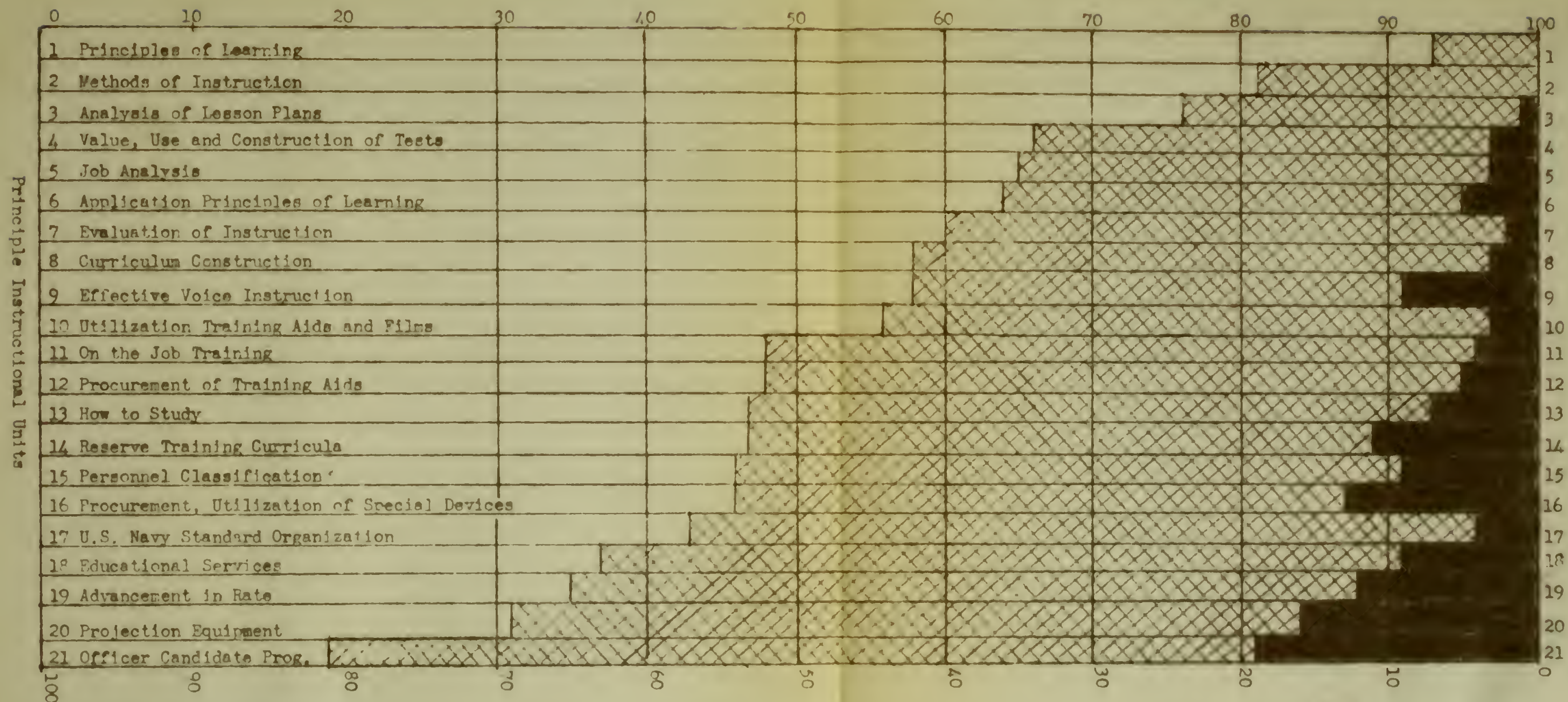


LEGEND:






GRAPH 3

Percentage of Trainees indicating "Value to You" as being above average, average, below average



LEGEND:

-  Below average
 Above average
 Average

2. Since most important point stressed is the lesson plan, I feel that more than one period should be devoted to "lesson planning".
3. In the overall picture, I believe the Instructor Training Course is very well organized and a valuable adjunct to both the Naval Reserve and the Regular Navy. The informal, yet well organized, manner in which the instructors went about in presenting the materials deserves commendation.
4. I want to compliment the staff and instructors on the organization and presentation of the Instructor Training Course. As a tour particularly designed for 2 week training duty, it not only provides invaluable instruction to instructors, but reacquaints them with active duty and brings them up to date on many new phases in the overall Naval Reserve Training Program. I am not only speaking for myself but am incorporating statements which have been made to me and remarks that I have overheard when I say it was a worthwhile course.... well done.
5. This course is a very good one, and should go a long way in helping those charged with the responsibility of training. I found it particularly valuable in that it tended to crystallize and arrange in a clearer manner many thoughts and observations that had gone through my mind in connection with my own Organized Naval Reserve Unit. By this, I mean that instructor training, like classification, recruiting, and certain other problems facing the Reserve, are extremely significant ones that require a reasonable understanding of the overall picture in order to successfully cope with them on lower levels. Unless an officer or an enlisted man had some background of experience in the field of education, or through actual teaching in the Navy had acquired the "know-how", it is inconceivable that this course would result in anything less than a better prepared instructor or instructor-supervisor. Furthermore, the fundamental principles of learning and teaching as brought out in this course should be of considerable help to most of the trainees in their civilian occupations. I know it will be in mine.

6. The two week period does not permit adequate time for the number of subjects covered. This course could well be given over a two month period. Since the two month course is not possible, I would highly recommend eliminating some of the least desirable courses, and allow more time for student participation.let them try their hand at student teaching under observation of the school's staff.... this would be most beneficial.
7. The course did much to enlighten me on the Naval Reserve Program. I was pleased to find out that so much time, effort, and expense is being devoted toward establishing and maintaining a good strong Naval Reserve. I think such a program is vital to our National Defense.
8. The course gave me a clearer view of the training procedures for the Naval Reserve. It brought out the many errors that I have been making in my training methods and showed me means of correcting these errors.
9. My benefit from this course was: (1) Proper teaching method, (2) free utilization of training aids of which I had no idea I may have access to, (3) that I am not teaching a class, but that I am teaching individuals, (4) and the power to be able to convey my experience to someone else. The use of sound movies for training purpose, free use of questions when in doubt, clear conduction of course by most of the instructors were things that also impressed me about this course.
10. From the enlisted man's standpoint, I think the course as a whole was conducted in a very good manner. The methods were all in plain view, and I learned very much by just watching the actions of all the instructors. I now feel that I can get up in front of a class and not have my knees playing some sort of a melody. I recommend this course to anyone I think it was swell.
11. I feel that I have gained valuable knowledge in the art of teaching and handling of a class so that specific learning is accomplished.

The orderly and logical presentation by all the instructors was good with a few of them being considered outstanding.

12. This is without a doubt the finest training course I have ever taken in or out of the Navy. I feel that the school is particularly fortunate in having a staff of instructors who possess such fine teaching qualities and go about their work in a friendly, enthusiastic and orderly manner. It is schools like this that will help the Naval Reserve program stay alive and stimulate its growth.
13. I now have a definite course to follow in planning and preparing training plans for our unit. I also have been thoroughly acquainted with available help in form of training aids and where to secure them.
14. The course was well paced...the instructors were good and enthusiastic, and the whole program was conducted in an adult, mature fashion. One enlisted man told me it was the first time he had ever felt at ease with officers.
15. More time should be allocated to give the students time to discuss their specific problems in training...with class discussion. This would give practical application to the whole.
16. It has given me an appreciation of the fundamentals of teaching, at the minimum, plus some of the basic methods of teaching. I hope I will be able to pass on some of this material to the other instructors in my division in an effort to improve our training program.
17. I would recommend that the school draw up an outline of the course and present it to the graduates. Also prepare a list of publications found to be useful in instructor training.
18. A splendid course from beginning to end. I wish some pressure could be brought to bear on all men and officers in Reserve Training to attend it.

19. The course's greatest contribution to me was that it helped me to speak before a crowd and understand a student.
20. This course is finer than anything I have received in my college training, leading to my position as instructor at ----- College. I think it should be set up for college credit, as a summer school credit to teachers.
21. The conscientious efforts of each instructor; the completeness of preparation; the sincerity of purpose; the deep interest in the students; and friendly attitude that prevailed throughout the course made a good impression on me.
22. Classes should be restricted to 30 or 35 students to allow more opportunity for student participation in discussions.
23. It is probably not the fault of the instructors but I feel that the classroom could stand being improved. The window curtains flapped continually during the two week period; a noisy fan was constantly running making it difficult to hear from the rear of room; lighting was all artificial....the shades were drawn most of the time; chairs should have arm rests for note taking; too many chairs in the room (about 50 piled up around the bulkheads).

CHAPTER V

SUMMARY AND CONCLUSIONS

As pointed out earlier in this thesis, no instructor training program of two weeks' duration can even hope to turn out polished instructors. Our American Colleges and Universities require the student to spend four years of intensive training, pursuing a prescribed course of instruction, and completing this program satisfactorily before he is given the stamp of approval and labeled an instructor.

Considering the many limitations within which the 12 ND USNR Instructor Training Program operates, it is felt that the mission of the school is being carried out in a most satisfactory manner. Based on the results of the study it can be stated that the instructors of this school are doing a very fine piece of work and that their efforts have resulted in what one might term well above average instruction.

The results of this study have been thoroughly discussed with the Staff of the 12 ND USNR Instructor Training School with the below listed conclusions and recommendations being given the most weight. A copy of this study will be made available to the School Staff.

1. That the results of this study be thoroughly reviewed by each instructor of the 12 ND USNR Instructor Training School with a view toward improving

those instructor requirements indicated by the evaluations to be either "average" or "below average".

In conducting this study one of the most noticeable shortcomings of some of the instructors was the failure to prepare and follow a definite lesson plan. There exists no doubt that all the instructors knew their subject matter thoroughly, but their instruction in several instances, was not up to expectations mainly due to the failure to prepare and follow a well thought out lesson plan.

In the field of education, and especially in the instructor training phase of this field, the importance of good sound lesson planning in relation to good instruction cannot be over emphasized. On this important topic it is considered desirable to quote an excerpt from the FIRST Naval District's Naval Reserve Electronic Warfare Bulletin:

What would be the result if one attempted to build a house without plans or specifications? What would be the result if an engineering firm attempted to build a road without plans or specifications? Are not all important human undertakings carefully planned?

Teaching is a very complicated process. Unplanned, opportunistic teaching brings muddle and confusion. An instructor who carefully plans is able to accomplish things which the unorganized teacher cannot achieve or hope to achieve.

Many different items must be manipulated during a class period so that learning will take place. An instructor must first consider the problem of individual differences. The trainees are of various ages, both chronological and mental; they are of varied backgrounds and varied amounts of energy. The instructor must motivate these various types of individuals and devise exercises which will involve appropriate learning. This he cannot accomplish unless he carefully plans his work.

There are many different outcomes to be accomplished each class period. The trainees must appreciate the value of these learning outcomes or there would be no urge on their part to work for them. The instructor must endeavor to secure such an appreciation by pointing out in a convincing manner the benefits and advantages to be derived from the results of his work. The work of the trainee then becomes significant and worth doing. Such calls for careful planning on the part of the instructor.

The subject matter is of varying complexity and the use of instructional aids needs to be organized. A skillful instructor is alert to this problem. He foresees most "unforeseen difficulties" and carefully plans the use of such aids so as to reduce to a minimum the number of difficulties to be encountered.

Finally, among many types of trainees we find various attitudes. The instructor must carefully plan to endeavor to remove or prevent such negative attitudes as discouragement, indifference, feelings of inferiority, insecurity and cynicism. On the other hand, he must plan to promote self-confidence, self-reliance, a sense of belonging to the group, cooperativeness and the feeling that being in the Navy is a privilege.¹

It is, therefore, recommended that each instructor be required to prepare a thorough lesson plan for each subject taught and make proper use of this lesson plan during his presentation.

1. Naval Reserve Electronic Warfare Bulletin 51-49 published by the FIRST Naval District, Boston, Massachusetts, quoted in U.S. Naval Training Bulletin NAVPERS 14987, dated March 1950, p. 5. U.S. Government Printing Office, Washington, D.C.

2. That procedures be established and enforced for selecting personnel to take the 12 ND USNR Instructor Training Course. With the Navy Department placing so much stress on the instructor training program, it would appear that to permit anyone other than instructors or prospective instructors to take this course would be a definite obstacle in preventing the mission of the course from being carried out. Prospective instructors are interpreted to mean instructors who are definitely slated for an instructor billet. It is recalled that seventy-five percent of the questionnaires returned by commanding officers of the graduates of this school indicated that the graduates had not performed instruction duties prior to nor subsequent to taking this course. By limiting the enrollment as indicated above there would be a smaller class each month, which would permit the staff to give more individual attention to problems of instruction that confront the individual trainee back at his home unit. Any additional time gained through this restriction of enrollment could well be utilized by the school for student-teaching as recommended in item 3 below.
3. That consideration be given to revising the curriculum of the 12 ND USNR Instructor Training

Course with a view toward providing each trainee with an opportunity to do some student-teaching.

It is an established practice and a requirement of our American Colleges and Universities granting degrees and teaching credentials in the field of education that the student do a specified amount of practice teaching. This practice teaching is done under strict supervision by members of the faculty and the student is evaluated while on the job, which, without a doubt, is one of the most effective and satisfactory ways of training, selecting, and recommending prospective teachers to this most important phase of the educational program.

At the 12 ND USNR Instructor Training School there is no opportunity for the trainee to do practice teaching. It is true that the time factor prohibits providing the necessary time for the trainee to do adequate practice teaching, but it appears that the course would be much more valuable to the trainees if some time could be provided for such a program. It is, therefore, recommended that consideration be given to eliminating the five periods devoted to "Application of the Principles of Learning" and that additional time be taken from those courses which the students have indicated

on the student questionnaire as being of "the least value" to them and utilize this time for student practice teaching. At the beginning of each new class the trainees could be advised that they will each be given thirty minutes during the final days of the course in order to allow them an opportunity to teach a complete lesson and that they should be making preparation for this presentation throughout the course. It would seem very desirable for the trainees to be required to prepare or obtain an appropriate training aid and use it effectively in this presentation. In such a practice teaching program the students still could make effective use of the topic "Application of the Principles of Learning", by incorporating these principles into their presentation.

After each presentation the staff instructor should take over and offer criticism on the presentation, making sure that credit is given where it is due and that the undesirable practices are pointed out in a tactful and helpful manner. This procedure will greatly assist the student in learning the correct ways of teaching a lesson. An opportunity should also be provided for class discussion after each presentation in order to get the students reaction to the presentation.

The above recommendation, if carried out, would require approval of the Chief of Naval Personnel since it would involve a change in the curriculum. It is believed, however, that the Chief of Naval Personnel will act favorably in this recommendation since the author discussed this matter with personnel of the Training Office of the Bureau of Naval Personnel while in Washington, D.C., doing some research as background for this project and this office appeared to favor such a curriculum change.

4. That consideration be given to revising the examinations given the trainees. It was learned that the examination used for the "pre-test" and "re-test" was made up entirely by one member of the staff. It does not follow that an instructor training course staff, who are expected to be familiar with testing techniques and procedures, would permit one member of the staff to prepare an examination covering all the subjects taught during the course.

It is, therefore, recommended that the examination being used be thoroughly revised with each instructor participating freely in the revision. Specifically, it is recommended that the "pre-test" be continued, but somewhat on a smaller scale, viz; that this examination be limited to not more than

100 questions by selecting the most applicable questions from the present examination, and supplement them with questions furnished by the instructor staff. That the "re-test" or final examination be continued, but that it be made longer and more comprehensive. The final examination could contain the "pre-test" questions, but they should be concealed throughout the final examination so that they would not be readily recognized as being "pre-test" questions. This would still permit the school to reap the benefits of the "pre-test"--"re-test" aspect, but with much more effect. Although the staff does not tell the students that they will be given the same test when they complete the course, it is obvious that they must be aware of this arrangement as the result of having been briefed on the course by their associates back at their home unit who have taken the course at some previous date.

It is further recommended that a few short "pop-quizzes" be given from time to time, especially following the showing of a movie or the completion of one of the more important topics. This will have the effect of letting the students know that they are going to be responsible for this work and that the course means more than merely

an opportunity to get off the two weeks annual active duty requirement.

5. Upon completing the course, no grade or mark is assigned the graduates. Although the trainees are not advised that they know this since the records of their associates who have taken the course before them do not contain a mark or grade for the course.

It is an established practice of effective instruction that the trainee be made responsible in some way for the material presented in the classroom.

It is recommended, therefore, that the trainees be advised that they will be held responsible for the material covered in the class and that they will be examined from time to time. That they will be given a final grade which will be entered in their record and this grade will be based on the examinations that they are given from time to time, on class participation, general attitude, and their thirty minute period of practice teaching, assuming that this will be included in the curriculum.

6. Prepare an instructor training manual for this course and include such items as objective of the course, curriculum of the course, a brief summary of each subject taught, factors effecting learning,

requirements of a good instructor, helpful hints for instructors, the instructors' lesson plans for each topic, and other related items. A bit of personal touch could be added by including the names of the instructors, the members of the class, their home activity, rate, rank, etc. Upon reporting for the course, the graduates could be given this manual. This would not only be excellent publicity for the course, but it would make the course seem more meaningful to the trainees in that they would have it as a guide to use while taking the course and also have something to show their associates in the home town Organized Reserve Unit. In this connection, reference is made to the Instructor Training Manual published by the Director of Training NINTH Naval District, Great Lakes, Illinois, covering 9 ND USNR Instructor Training Course which incorporates most of the abovementioned statements.

7. That consideration be given to moving the class to a smaller classroom if such can be made available. The desirable thing would be to get a classroom that would be used only for the 12 ND USNR Instructor Training Course. This arrangement would permit the visiting instructors to have a file in the rear of the room where they could leave their

material and not have to carry it from their home or place of business to the class each time they teach. This room should be provided with chairs having arm rests to facilitate note taking. A permanent installation for showing movies could be installed without too much effort and expense. Such an arrangement would contribute toward eliminating the other undesirable conditions surrounding the classroom that have been mentioned earlier in this study.

8. That some thought be given to the development of an advanced course of two weeks' duration in instructor training. In this course most of the time could be devoted to practice teaching under critical observation of the instructors and members of the class. This course could be taught every third or fourth month and open only to graduates of the present course. Such a course would also have the effect of taking up the slack in enrollment that might be created if the present course is limited only to instructors or prospective instructors. The present course could be taught nine or ten months out of the year and the advanced course two or three months out of the year, with the exact schedule being determined by interest as evidenced by application for the two courses.

9. There appears a definite need for a period, or periods, in the present course whereby the trainees can get together and informally discuss problems of the instructor as relate to their home town units. The author talked with many of the trainees during the course of this evaluation project and a majority of the trainees interviewed strongly favored such a program, and indicated a willingness to devote at least one or two evenings to such a program if time could not be found in the daytime to provide for it, providing one of the staff instructors would volunteer to act as chairman.

It is, therefore, recommended that the School Staff survey this idea with a view toward providing such a program.

10. Have the subjects "Procurement of Training Aids", and "Utilization of Training Aids and Training Films" taught at the West Coast Training Aids Center, which is located only a few blocks from Building 7. When the students take their tour through this Training Aids Center they would already be there to learn about their procurement and utilization in an environment more suitable to the subject than the bare classroom of Building 7. There is a classroom at the Training Aids Center large enough to accommodate the average class that has attended

the school since its establishment. A review of the curriculum will show that one full day is devoted to the abovementioned subjects together with the tour through the Training Aids Center.

To follow this recommendation would not necessitate any loss in time since the trainees could report to the Training Aids Center for their first period in the morning instead of reporting to Building 7.

11. That the student questionnaire (see Appendix B) be modified to include such statements as:
 - a. Why did you apply to take this course?
 - b. What did you expect to gain from this course?
 - c. Did this course measure up to your expectations? (If not briefly explain)
 - d. What action would you take to improve the course?
 - e. What five subjects of this course do you consider to be the most value to you? (List them in the order of your preference)
 - f. What five subjects do you consider to be the least value to you? (List them in the order of their value to you, with the one of the least value being listed first, etc.)
 - g. If you were in charge of this school and had to eliminate 6 periods from the course what subjects would you eliminate? Briefly give your reasons.

In this questionnaire adequate space should be provided for the trainee to express his opinion freely. The conscientious opinions of students are very

desirable and valuable in planning a curriculum to suit the needs of the trainees. It is considered that with the above additions to the present student evaluation questionnaire that the school staff will get some excellent recommendations for this course.

12. In presenting some of the topics the amount of time devoted by some of the instructors to the lecture methods of instruction as compared to the amount of class discussion, use of training aids, etc., was very noticeable and seemed to have a decided effect upon the trainees.

It is, therefore, recommended, that the curriculum be reviewed with a view toward utilizing more training aids, class discussion, etc., to supplement straight lecture periods in those courses now overwhelmingly devoted to the straight lecture method of instruction.

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APPENDIX

APPENDIX A

INSTRUCTOR EVALUATION SHEET

Instructor _____						
Rank or _____	Service _____					
Rate _____	Number _____	2.0	2.5	3.0	3.5	4.0
Months experience _____	GCT Score _____					
Topic of _____						
Lesson observed _____	Number _____					
	in class _____					
Method of lesson presentation _____						
(circle)						
Lecture, Demonstration, Directed						
Discussion, Other (specify) _____						
The main purpose of this report is to point out strengths and weaknesses so that instruction may be improved. Use check () mark in appropriate column.						
I. <u>Physical aspects of the classroom:</u>						
1. Light, heat, ventilation.....						
2. Arrangement of chairs, tables, desks, etc.....						
3. Distractions minimized.....						
II. <u>Physical aspects of Instructor:</u>						
4. Voice.....						
5. Dress.....						
6. Poise, mannerisms, etc.....						

DNA	2.0	2.5	3.0	3.5	4.0

32. Did Instructor follow up after using aid.....

a. Were the important points emphasized.....

b. Was content of aid summarized.....

c. Was discussion held which was integrated with the aid.

33. List Audio-Visual Aids Instructor used:

a. _____

b. _____

c. _____

d. _____

VII. Additional Comments:

A. Favorable to good instruction:

B. Unfavorable to good instruction:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	12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APPENDIX B
INSTRUCTOR TRAINING COURSE
EVALUATION SHEET

Name

Rank/Rate

Date

Much of the success of the Instructor Training Course can be directly attributed to the constructive comments, suggestions, and criticism of the students in the course. In order to assist the Director of Training in further improvement, you are requested to answer the following questions.

We hope to learn whether or not you found the various lessons and presentations of value to you, whether the amount of time spent was satisfactory, and whether the presentations were clear and effective.

PART I

The 21 main topics of the course are listed with the 3 points on which your opinion is especially desired. Place checks in the appropriate columns for each topic.

VALUE TO YOU	TIME SPENT			CLEARNESS OF PRESENTATION		
	Above Average	Average	Below Average	About Right	Too Much	Too Little
Educational Services						
U.S.Navy Standard Organization						
Principles of Learning						
Procurement of Training Aids						
Utilization Training Aids & Films						
Effective Voice Instruction						
Methods of Instruction						
How To Study						
Application Principles of Learning						
Job Analysis						
Curriculum Construction						
On The Job Training						
Analysis of Lesson Plan						

VALUE TO YOU			TIME SPENT			CLEARNESS OF PRESENTATION		
Above Average	Average	Below Average	About Right	Too Much	Too Little	Above Average	Average	Below Average
Evaluation of Instruction								
Advancement in Rate								
Procurement, Util. Spec. Devices								
Projection Equipment								
Value, Use & Construction of Tests								
Officer Candidate Program								
Reserve Training Curricula								
Personnel Classification								

PART II
COMMENTS

Please make any comments, (good or bad) which are not adequately covered in Part I, in this space.

1. *What is the purpose of the study?*
 2. *What is the research question?*
 3. *What is the hypothesis?*
 4. *What is the significance of the study?*
 5. *What is the scope of the study?*
 6. *What is the methodology?*
 7. *What is the data collection method?*
 8. *What is the data analysis method?*
 9. *What is the conclusion?*
 10. *What are the limitations of the study?*
 11. *What are the implications of the study?*
 12. *What are the future research directions?*

Question	Answer	Total Score						Percentage	
		1	2	3	4	5	6	Score	Percentage
1. What is the purpose of the study?									
2. What is the research question?									
3. What is the hypothesis?									
4. What is the significance of the study?									
5. What is the scope of the study?									
6. What is the methodology?									
7. What is the data collection method?									
8. What is the data analysis method?									
9. What is the conclusion?									
10. What are the limitations of the study?									
11. What are the implications of the study?									
12. What are the future research directions?									
Total Score									
Percentage									

APPENDIX C

SELF-EVALUATION TEST FOR INSTRUCTORS

Directions for using the test:

This test consists of 25 questions, each of which has been given a maximum score. A question is valued according to the part it has in making a good instructor.

The test assumes that you know your subject matter well. No matter how skillful you may be in teaching, you cannot be a good instructor unless you learn your subject thoroughly and keep alert for all new developments in your field.

Read each question carefully. Then consider all the good practices that add up to make the maximum score. After this, estimate as well as you can how closely you are following good practices and score yourself accordingly.

Remember this is a self test. Its value for you will depend upon how honest you are with yourself. When you have finished, add up your score and compare it with this scale:

- 90 or above is outstanding
- 80 to 89 is above average
- 70 to 79 is average
- 62 to 69 is below average

If your score is below 62, you will know that there is a definite need for you to improve. You will have to change many of your teaching habits.

Maximum Score	My Score
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1. Do I check the physical aspects of my classroom, shop, or laboratory..... (4) ()
 Good instructors make every effort to improve the environment. They insist on:
 - (1) Good lighting
 - (2) Proper heat
 - (3) Good ventilation
 - (4) Good equipment
 - (5) Best possible arrangement of equipment

2. Do I introduce myself at the first session?..... (1) ()
 Good instructors
 - (1) Write name on blackboard
 - (2) Pronounce their names
 - (3) Tell something of their background

3. How well do I learn names?..... (3) ()
 Good instructors:
 - (1) Make out seating charts, particularly for large groups
 - (2) Address questions to individuals
 - (3) Use principle of association

4. Do I get essential information regarding each trainee?..... (4) ()
 Here are some suggestions on how to get it:
 - (1) Use Qual Cards if available
 - (2) Have men fill out a questionnaire
 - (3) Interview each man
 - (4) If time does not permit interviewing all trainees, talk to those who seem to need special attention

5. Am I punctual and do I expect punctuality? (2) ()
 Good instructors:
 - (1) Start their classes on time
 - (2) Are punctual for all appointments and expect the same from the men

6. Am I an example of good military bearing and neatness?..... (2) ()
 Good instructors recognize that:
 - (1) They are leaders
 - (2) Good example has value

- (1) (a) The first part of the document is devoted to a discussion of the various methods of determining the rate of reaction. The methods discussed are the initial rate method, the integrated rate method, and the half-life method. The initial rate method is the most accurate, but it is also the most difficult to apply. The integrated rate method is the most convenient, but it is also the least accurate. The half-life method is the simplest, but it is also the least accurate.
- (2) (b) The second part of the document is devoted to a discussion of the various factors which affect the rate of reaction. The factors discussed are temperature, concentration, and catalyst. Temperature is the most important factor, and it is also the most difficult to control. Concentration is the second most important factor, and it is also the second most difficult to control. Catalyst is the third most important factor, and it is also the third most difficult to control.
- (3) (c) The third part of the document is devoted to a discussion of the various theories of reaction rates. The theories discussed are the collision theory, the transition state theory, and the steady-state theory. The collision theory is the most widely accepted, but it is also the least accurate. The transition state theory is the most accurate, but it is also the most difficult to apply. The steady-state theory is the simplest, but it is also the least accurate.
- (4) (d) The fourth part of the document is devoted to a discussion of the various applications of reaction rates. The applications discussed are the determination of the rate of reaction, the determination of the activation energy, and the determination of the order of reaction. The determination of the rate of reaction is the most common application, but it is also the least accurate. The determination of the activation energy is the second most common application, but it is also the second most accurate. The determination of the order of reaction is the third most common application, but it is also the third most accurate.

	Maximum Score	My Score
--	------------------	-------------

7. Do I address the class effectively?.....	(2)	()
---	-----	-----

Good instructors:

- (1) Talk to everyone, including trainees in the back row
- (2) Avoid personal mannerisms, particularly distracting ones
- (3) Judge their effectiveness, to some extent, by observing expressions
- (4) Do not talk to the blackboard or walls

8. Am I careful with words?.....	(4)	()
----------------------------------	-----	-----

Good instructors:

- (1) Make their points clear by using words which can be understood
- (2) Always explain the meaning of unfamiliar or technical terminology and write the terms on the blackboard
- (3) Recognize that abusive language or profanity engenders disrespect and will not force trainees to learn
- (4) Avoid sarcasm

9. Do I develop a satisfactory lesson plan for each class?.....	(12)	()
---	------	-----

A good lesson plan has:

- (1) A simple but complete statement of what the trainees are expected to learn
- (2) A list of equipment and materials needed, including training aids: charts, films, recordings, film strips, etc.
- (3) An introduction for the lesson
- (4) Ways of presenting the lesson
- (5) Application and testing procedures
- (6) Summary of lesson with provision for reteaching facts or skills when necessary.

10. In the classroom and shop do I limit talking to a minimum so that the men can get to work?.....	(3)	()
---	-----	-----

Good instructors recognize:

- (1) Valuable time is lost by too much explanation
- (2) Experience in teaching, a study of the trainees, and an intelligent use of questions help a good instructor recognize when he should stop talking

	Maximum Score	My Score
11. Do I keep my classroom shipshape at all times?.....	(2)	()
Good instructors:		
(1) Insist upon an orderly arrangement of chairs, tables, and equipment		
(2) Insist that all trash be put in receptacles provided for this purpose, so that, at the end of the period, working areas are ready for the next class		
12. Do I avoid waste of time, keeping every man occupied with constructive work?.....	(3)	()
Good instructors:		
(1) Avoid "busy work" for its own sake		
(2) Avoid aimless repetition		
(3) Have a constructive assignment for every trainee at all times		
13. Do I keep my men at work until the end of the period?.....	(2)	()
Good instructors:		
(1) Prevent "horse play"		
(2) Have men who complete their work ahead of schedule either help others or take another assignment		
14. Am I human yet dignified?.....	(5)	()
Good instructors:		
(1) Find out what is wrong when they do not get along well with their trainees		
(2) Do not need to remain aloof on the principle that "familiarity breeds contempt"		
(3) Dispense with unnecessary formality		
15. Do I prepare teaching aids before class time?.....	(3)	()
In order to make the best use of instruction time, good instructors:		
(1) Draw neat blackboard diagrams beforehand		
(2) Have appropriate training aids ready for use		
(3) Have necessary bulletins, texts etc. in the classroom		
16. Do I get the fullest possible use out of training aids?.....	(4)	()
Good instructors:		
(1) Know when to use training aids		
(2) Improvise training aids whenever necessary		
(3) Make a careful study of a training aid before they present it		

	Maximum Score	My Score
17. Do I create learning situations?.....	(5)	()
Good instructors:		
(1) Know that a man must be trained to think about what he has learned		
(2) Stimulate group discussions and employ questions freely		
(3) Organize the instruction, as much as possible, in the form of problems		
18. Do I stress practical applications?.....	(3)	()
Good instructors:		
(1) Recognize that all learning must be applied		
(2) Give examples of uses to which information can be put		
19. Do I let man "learn by doing"?.....	(10)	()
Good instructors:		
(1) Realize that lectures and demonstrations have their place but that trainees learn only after practice		
(2) Limit lectures and demonstrations so as to give their trainees time to learn by doing.		
20. Does every man know what is to be accomplished each period?.....	(3)	()
Good instructors find that they get the best response when they acquaint their classes with the objective for each lesson in advance		
21. Do I observe sound principles of learning?.	(3)	()
Good instructors recognize that:		
(1) It is desirable to move from the simple to the more complex, from the known to the unknown		
(2) They are working first with people, secondarily with subject matter		
(3) Trainees must be motivated		
(4) Frequent review is necessary to prevent forgetting		
22. Am I making every effort to meet the needs of individuals?.....	(7)	()
Good instructors recognize students abilities and experiences, and consequently make every effort to adjust their instruction to the individual		

- | | Maximum
Score | My
Score |
|---|------------------|-------------|
| 23. Do I summarize at the end of each period?..
Good instructors summarize by:
(1) Listing main points on the black-board
(2) Questioning trainees orally
(3) Conducting a short written objective test | (4) | () |
| 24. Do I use the most effective type of examination?.....
Good instructors:
(1) Find that the objective test is better than the essay type of Navy training
(2) Generally use the multiple choice and completion type for testing specific knowledge
(3) Generally use performance tests for a small group and for testing specific skills
(4) Sometimes use a combination of objective types for testing general knowledge
(5) Usually avoid the True-False tests, as they encourage guessing. (A True-False can be used in an emergency where a quick, simple check-up is highly desirable.)

Note: Every instructor ought to read "Constructing and Using Achievement Tests", (NavPers 16808). | (4) | () |
| 25. Do I make full use of test results?.....
Good instructors recognize that tests:
(1) Help trainees review and organize subject matter
(2) Help determine knowledge of the subject
(3) Help trainees determine progress and standing
(4) Help instructors find weak points in their teaching | (5) | () |

Total Scores..... (100) ()

SUBMITTED BY: _____

APPENDIX D
DATA ON INSTRUCTORS

I. Name _____

II. Rank/Rate _____

III. Present Assignment: _____

IV. Civilian Background:

(A) Educational Background: (Check year completed)

(1) High School completed	(1)	(2)	(3)	(4)
(2) College completed	(1)	(2)	(3)	(4)
(3) Graduate School completed	(1)	(2)	(3)	(4)
(4) Degrees conferred:				

Degree _____

School _____

Date _____

(5) College major _____

College minor _____

(B) Professional or vocational background:

(1) List positions held and approximate length of each:

(2) Months teaching experience: _____

EXHIBIT A STATEMENT OF WORK

_____	1
_____	2
_____	3

_____ 4

(1) (2) (3) (4)	(5) (6) (7) (8) (9) (10)
(1) (2) (3) (4)	(5) (6) (7) (8) (9) (10)
(1) (2) (3) (4)	(5) (6) (7) (8) (9) (10)
(1) (2) (3) (4)	(5) (6) (7) (8) (9) (10)

_____	_____
_____	_____
_____	_____

V. Military Background:

(A) Years service _____

(B) Months teaching experience while in service:

(C) List some of duties (or assignments):

(1) _____

(2) _____

(3) _____

(4) _____

(5) _____

(6) _____

(7) _____

(8) _____

(9) _____

(10) _____

(D) Navy Schools attended:

(1) _____

(2) _____

(3) _____

(4) _____

VI. How long have you taught at USNR 12ND Instructor Training School? _____

Have you always taught the same subject? _____
If not, briefly explain:

VII. General Comments:

(1) Indicate the phases or portions of your contribution to the course which you consider most valuable:

(2) Briefly describe where you feel your participation in the course falls down (if such is the case):

(3) What do you recommend as a solution to No.(2) above:

VIII. Based on your personal observation, briefly indicate your general impression of the course:

IX. State your recommendations for improving the course:

X. Additional Comments (use back of page if necessary):

1. The first part of the book is devoted to the study of the properties of the function $f(x)$ which is defined on the interval $[0, 1]$ and satisfies the conditions

$$f(0) = 0, \quad f(1) = 1, \quad f(x) + f(1-x) = 1, \quad f(x) = f(x^2).$$

It is shown that the function $f(x)$ is continuous on the interval $[0, 1]$ and that it is differentiable at the point $x = 1/2$.

2. In the second part of the book the author studies the properties of the function $f(x)$ which is defined on the interval $[0, 1]$ and satisfies the conditions

$$f(0) = 0, \quad f(1) = 1, \quad f(x) + f(1-x) = 1, \quad f(x) = f(x^2), \quad f(x) = f(x^3).$$

It is shown that the function $f(x)$ is continuous on the interval $[0, 1]$ and that it is differentiable at the point $x = 1/2$.

3. In the third part of the book the author studies the properties of the function $f(x)$ which is defined on the interval $[0, 1]$ and satisfies the conditions

$$f(0) = 0, \quad f(1) = 1, \quad f(x) + f(1-x) = 1, \quad f(x) = f(x^2), \quad f(x) = f(x^3), \quad f(x) = f(x^4).$$

It is shown that the function $f(x)$ is continuous on the interval $[0, 1]$ and that it is differentiable at the point $x = 1/2$.

4. In the fourth part of the book the author studies the properties of the function $f(x)$ which is defined on the interval $[0, 1]$ and satisfies the conditions

$$f(0) = 0, \quad f(1) = 1, \quad f(x) + f(1-x) = 1, \quad f(x) = f(x^2), \quad f(x) = f(x^3), \quad f(x) = f(x^4), \quad f(x) = f(x^5).$$

It is shown that the function $f(x)$ is continuous on the interval $[0, 1]$ and that it is differentiable at the point $x = 1/2$.

5. In the fifth part of the book the author studies the properties of the function $f(x)$ which is defined on the interval $[0, 1]$ and satisfies the conditions

$$f(0) = 0, \quad f(1) = 1, \quad f(x) + f(1-x) = 1, \quad f(x) = f(x^2), \quad f(x) = f(x^3), \quad f(x) = f(x^4), \quad f(x) = f(x^5), \quad f(x) = f(x^6).$$

It is shown that the function $f(x)$ is continuous on the interval $[0, 1]$ and that it is differentiable at the point $x = 1/2$.

6. In the sixth part of the book the author studies the properties of the function $f(x)$ which is defined on the interval $[0, 1]$ and satisfies the conditions

$$f(0) = 0, \quad f(1) = 1, \quad f(x) + f(1-x) = 1, \quad f(x) = f(x^2), \quad f(x) = f(x^3), \quad f(x) = f(x^4), \quad f(x) = f(x^5), \quad f(x) = f(x^6), \quad f(x) = f(x^7).$$

It is shown that the function $f(x)$ is continuous on the interval $[0, 1]$ and that it is differentiable at the point $x = 1/2$.

7. In the seventh part of the book the author studies the properties of the function $f(x)$ which is defined on the interval $[0, 1]$ and satisfies the conditions

$$f(0) = 0, \quad f(1) = 1, \quad f(x) + f(1-x) = 1, \quad f(x) = f(x^2), \quad f(x) = f(x^3), \quad f(x) = f(x^4), \quad f(x) = f(x^5), \quad f(x) = f(x^6), \quad f(x) = f(x^7), \quad f(x) = f(x^8).$$

It is shown that the function $f(x)$ is continuous on the interval $[0, 1]$ and that it is differentiable at the point $x = 1/2$.

8. In the eighth part of the book the author studies the properties of the function $f(x)$ which is defined on the interval $[0, 1]$ and satisfies the conditions

$$f(0) = 0, \quad f(1) = 1, \quad f(x) + f(1-x) = 1, \quad f(x) = f(x^2), \quad f(x) = f(x^3), \quad f(x) = f(x^4), \quad f(x) = f(x^5), \quad f(x) = f(x^6), \quad f(x) = f(x^7), \quad f(x) = f(x^8), \quad f(x) = f(x^9).$$



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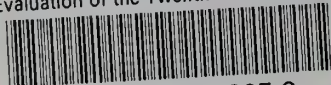
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